LG
Life's Good

LG optimus G

User Guide

All screen shots in this guide are simulated.
Actual displays and the color of the phone may vary.
Some of the contents in this manual may differ from your phone depending on the software of the phone or your service provider.

P/NO: MFL67702101 (1.0)

www.lg.com

LIMITED WARRANTY STATEMENT

1. WHAT THIS WARRANTY COVERS :

LG offers you a limited warranty that the enclosed subscriber unit and its enclosed accessories will be free from defects in material and workmanship, according to the following terms and conditions:

1. The limited warranty for the product extends for TWELVE (12) MONTHS beginning on the date of purchase of the product with valid proof of purchase, or absent valid proof of purchase, FIFTEEN (15) MONTHS from date of manufacture as determined by the unit's manufacture date code.

2. The limited warranty extends only to the original purchaser of the product and is not assignable or transferable to any subsequent purchaser/end user.

3. This warranty is good only to the original purchaser of the product during the warranty period as long as it is in the U.S, including Alaska, Hawaii, U.S. Territories and Canada.

4. The external housing and cosmetic parts shall be free of defects at the time of shipment and, therefore, shall not be covered under these limited warranty terms.

5. Upon request from LG, the consumer must provide information to reasonably prove the date of purchase.

6. The customer shall bear the cost of shipping the product to the Customer Service Department of LG. LG shall bear the cost of shipping the product back to the consumer after the completion of service under this limited warranty.

2. WHAT THIS WARRANTY DOES NOT COVER :

1. Defects or damages resulting from use of the product in other than its normal and customary manner.

2. Defects or damages from abnormal use, abnormal conditions, improper storage, exposure to moisture or dampness, unauthorized modifications, unauthorized connections, unauthorized repair, misuse, neglect, abuse, accident, alteration, improper installation, or other acts which are not the fault of LG, including damage caused by shipping, blown fuses, spills of food or liquid.

3. Breakage or damage to antennas unless caused directly by defects in material or workmanship.

4. That the Customer Service Department at LG was not notified by consumer of the alleged defect or malfunction of the product during the applicable limited warranty period.

5. Products which have had the serial number removed or made illegible.

6. This limited warranty is in lieu of all other warranties, express or implied either in fact or by operations of law, statutory or otherwise, including, but not limited to any implied warranty of marketability or fitness for a particular use.

7. Damage resulting from use of non-LG approved accessories.

8. All plastic surfaces and all other externally exposed parts that are scratched or damaged due to normal customer use.

9. Products operated outside published maximum ratings.

10. Products used or obtained in a rental program.

11. Consumables (such as fuses).

3. WHAT LG WILL DO:

LG will, at its sole discretion, either repair, replace or refund the purchase price of any unit that does not conform to this limited warranty. LG may choose at its discretion to use functionally equivalent reconditioned, refurbished or new units or parts or any units. In addition, LG will not re-install or back-up any data, applications or software that you have added to your phone. It is therefore recommended that you back-up any such data or information prior to sending the unit to LG to avoid the permanent loss of such information.

4. STATE LAW RIGHTS :

No other ex warranty is applicable to this product. THE DURATION OF ANY IMPLIED WARRANTIES, INCLUDING THE IMPLIED WARRANTY OF MARKETABILITY, IS LIMITED TO THE DURATION OF THE EXPRESS WARRANTY HEREIN. LG INFOCOMM INC. SHALL NOT BE LIABLE FOR THE LOSS OF THE USE OF THE PRODUCT, INCONVENIENCE, LOSS OR ANY OTHER DAMAGES, DIRECT OR CONSEQUENTIAL, ARISING OUT OF THE USE OF, OR INABILITY TO USE, THIS PRODUCT OR FOR ANY BREACH OF ANY EXPRESS OR IMPLIED WARRANTY, INCLUDING THE IMPLIED WARRANTY OF MARKETABILITY APPLICABLE TO THIS PRODUCT.

Some states do not allow the exclusive of limitation of incidental or consequential damages or limitations on how long an implied warranty lasts; so these limitations or exclusions may not apply to you. This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

5. HOW TO GET WARRANTY SERVICE :

To obtain warranty service, please call or fax to the following telephone numbers from anywhere in the continental United States:

Tel. 1-800-793-8896 or Fax. 1-800-448-4026

Or visit www.lg.com.
Correspondence may also be mailed to:

LG Electronics MobileComm U.S.A., Inc.

201 James Record Road Huntsville, AL 35824

DO NOT RETURN YOUR PRODUCT TO THE ABOVE ADDRESS.
Please call or write for the location of the LG authorized service center nearest you and for the procedures for obtaining warranty claims.

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Important Notice

Please check to see if any problems you have encountered with your phone are described in this section before taking the phone in for service or calling a service representative.

1. Phone Memory

In order to make more memory available, you will have to manage your applications and delete some data, such as applications or messages.

Managing Applications

1 From the Home screen, tap the **Menu Key** and tap **All settings** > **General** tab > **Applications**.

2 Tap one of the available tabs at the top of the screen and select the application you want to uninstall.

3 Tap **Uninstall** and then tap **OK** to confirm that you want to uninstall the desired application.

2. Optimizing Battery Life

You can extend your battery's life between charges by turning off features that you don't need to run constantly in the background. You can also monitor how applications and system resources consume battery power.

To extend the life of your battery

- Turn off radio communications that you aren't using, such as Wi-Fi, Bluetooth, or GPS.

  Wi-Fi will be set to On the first time you use your newly purchased phone.

- Lower screen brightness and set a shorter screen timeout.

- Turn off automatic syncing for Gmail™, Calendar, Contacts, and other applications.

- Some applications you have downloaded may cause your battery power to be reduced.

- While using downloaded applications, check the battery charge level.

To view the battery charge level

1 From the Home screen, tap the **Menu Key** and tap **All settings** > **General** tab > **Power saver**.

2 Slide the screen up to see the BATTERY INFORMATION section. The battery status (charging or discharging) and level are displayed at the bottom of the screen.

To monitor and control what uses the battery

1 From the Home screen, tap the **Menu Key** and tap **All settings** > **General** tab >

Power saver > **Battery use**.

2 It lists all of the applications or services using battery power from the greatest amount of energy used to the least amount. You can also use it to turn off applications or services, if they are consuming too much power. Tap any of the listed items for more options.

3. Installing an Open Source Operating System

Installing an open source operating system on your phone and not using the operating system provided by the manufacturer can cause your phone to malfunction.

Warning

- If you install and use an operating system other than the one provided by the manufacturer, your phone is no longer covered by the warranty.
- To protect your phone and personal data, download applications only from trusted sources, such as Play Store. If some applications are not properly installed on your phone, your phone may not work properly- or serious errors may occur. You will need to uninstall those applications and all of its data and settings from the phone.

4. Using Swipe, Face Unlock, Pattern, PIN, or Password

Set Swipe, Face Unlock, Pattern, PIN, or Password to secure your phone. To set the screen lock, follow the process below.

From the Home screen, tap the **Menu Key** , tap **Lock screen settings** > **Select screen lock** and select a desired screen lock from **Swipe**, **Face Unlock**, **Pattern**, **PIN** and **Password**.

NOTE

In case that you have trouble with Face Unlock, you can unlock the screen a Backup Pattern or PIN. Please note that this feature is only available after you set up your Google account on your device.

Warning

Take precautions when using an unlock Pattern, PIN, or Password. It is very important that you remember the screen unlock information you set. You are allowed

5 attempts to enter your screen unlock information. If you used up all 5 opportunities, you will have to wait 30 seconds to attempt unlocking the phone again.

When you can't recall your Unlock Pattern, PIN, or Password:

If you logged into a Google account on the phone and failed to use the correct pattern 5 times, tap **Forgot pattern?** You will be required to sign in with your Google account and prompted to create a new unlock pattern.

If you have set a backup PIN, you can unlock the screen with keying in the backup PIN.

If you haven't created a Google account on the phone or you forgot your PIN, Password, and the backup PIN, you need to perform a hard reset.

Caution

If you perform a hard reset, all user applications and user data will be deleted. Please remember to back up any important data before performing a hard reset.

Read ALL steps before attempting.

1. Turn the phone off.
2. Press and hold **Volume Down Key** + **Power/Lock Key** at the same time.
3. Release the keys when the FACTORY HARD RESET screen appears.
4. Read the warning and press the **Power/Lock Key** to confirm. Press any other key to cancel.
5. Press the **Power/Lock Key** to confirm once more or press any other key to cancel.
6. Your device will perform a hard reset.

5. Using Safe Mode and System Recovery

Using Safe mode

To recover your phone when malfunctioning.

1. Turn off your phone and reboot. When you see the booting animation (Rethink Possible SM) press and hold the **Volume Down Key**. Your Home screen will then be displayed with the words "Safe mode" in lower left corner.
2. From the Home screen, tap the **Menu Key** and tap **All settings** > **General** tab > **Applications**.

3 Tap one of the available tabs at the top of the screen and select the application you wish to uninstall.

4 Tap **Uninstall** and **OK** to confirm.

5 After uninstalling the application, turn off and reboot your phone.

6. Using a microSD Card

Pictures, music and video files can be saved to external memory. Before saving these files to external memory, you need to insert a microSD card. If you have not inserted a microSD card, you will not be able to save these items on external memory.

Warning

Do not remove the microSD card without unmounting it first. Otherwise, it may damage the microSD card as well as your phone, and the data stored on the microSD card may be corrupted. To remove the microSD card safely, from the Home screen, tap the **Menu Key** and tap **All settings** > **General** tab > **Storage** > **Unmount SD card** > **OK**.

7. Connecting your phone to a computer via USB

1 Use the USB cable that was provided with your phone to connect the phone to a USB port on your computer. You'll receive a notification that the USB is connected and can see USB connection mode screen.

2 Tap **Media sync (MTP)** or **Camera (PTP)** to confirm that you want to transfer files between your phone's microSD card and the computer.

When the phone is connected as USB storage, you receive a notification. Your phone's microSD card is installed as a drive on your computer. You can now copy files to and from the microSD card.

TIP

You cannot access the microSD card from your phone while connected as USB storage. So you cannot use applications that rely on the microSD card, such as Music.

8. Unlock screen when using data connection

Your screen will go dark if untouched for a period of time when using a data connection. To turn on your LCD screen, press the **Power/Lock Key** . To change the

lengh of time the screen takes to turn off, tap the **Menu Key** > **All settings** > **Display** tab > **Screen timeout** and select the desired amount.

9. Internal antenna

Please hold the mobile phone straight up as a regular phone.

While making/receiving calls or sending/ receiving data, try to avoid holding the lower part of the phone where the antenna is located. It may affect call quality.

10. When the screen freezes

If the phone does not respond to user input or the screen freezes:

Press and hold the **Power/Lock Key** for 10 seconds to reboot it.

11. Do not connect your phone when you power on/off your PC

Make sure to disconnect your phone from the PC when powering your PC on or off as it might result in PC errors.

Your Phone

To turn on the phone, press and hold the **Power/Lock Key** on the right side of the phone for 3 seconds. To turn off the phone, press the **Power/Lock Key** on the right side of the phone for 3 seconds and tap **Power off** and **Yes** to confirm.

Front view

Proximity Sensor

- Senses proximity toward other objects, such as your head during a call, so that you do not accidentally activate unwanted features.

Quick Keys

- Gives you quick access to your most used applications.
- To add an icon, drag and drop it in the bar.
- To remove an icon, touch and hold it and remove it from the bar.

Back Key

- Returns to the previous screen.
- Closes pop-up menus and dialog boxes.

Home Key

- Returns to the Home screen from any screen.

Earpiece

Front Camera Lens

- Use to take a picture of yourself or to video chat on supported applications.

Power/Lock Key

- Powers your phone on/off by pressing and holding the key.
- Turns your screen on and off and locks it.

Menu Key

- Displays available options for the current screen or application.
- Touch and hold to search within the current application (not available for all applications).

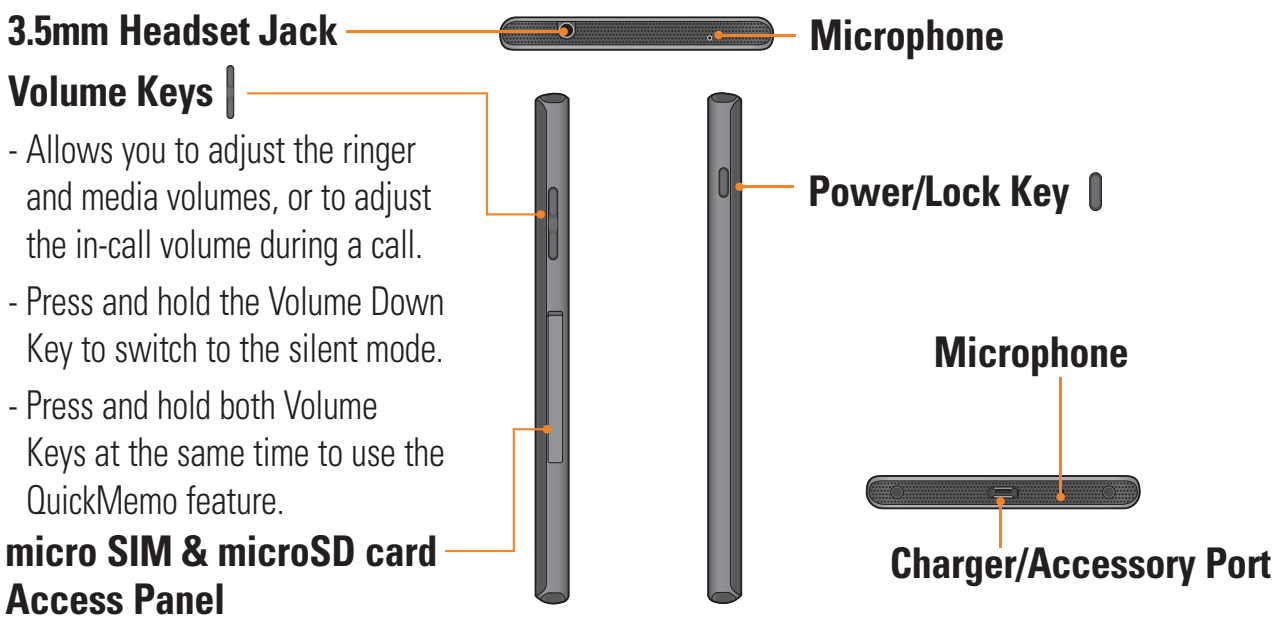
Warning

Placing a heavy object on the phone or sitting on it can damage its LCD and touch screen functionalities. Do not cover the LCD's proximity sensor with a protective film. This can cause the sensor to malfunction.

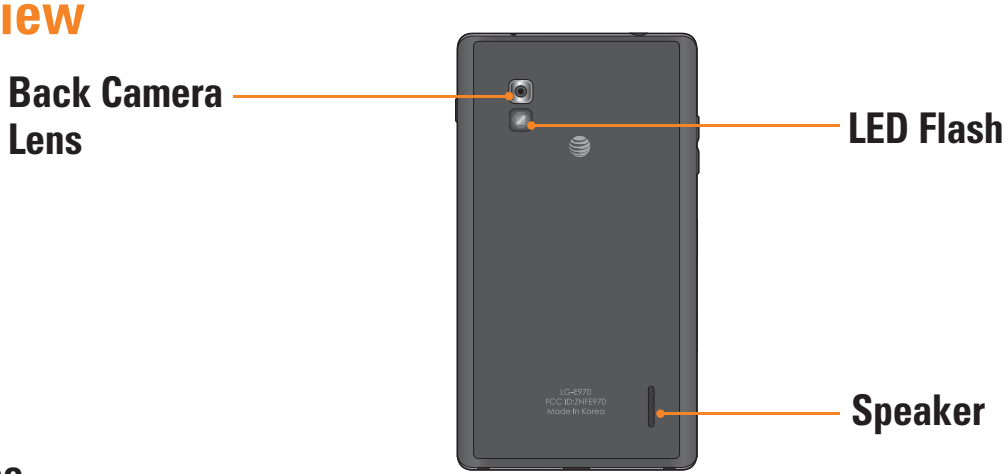
TIPS

- Tap the **Menu Key**, whenever you open an application to check what options are available.

Side view


3.5mm Headset Jack
Microphone
Volume Keys
- Allows you to adjust the ringer and media volumes, or to adjust the in-call volume during a call.
- Press and hold the Volume Down Key to switch to the silent mode.
- Press and hold both Volume Keys at the same time to use the QuickMemo feature.
Power/Lock Key
Microphone
micro SIM & microSD card Access Panel
Charger/Accessory Port

Rear view



Notice

The NFC antenna for this model is on the back cover.

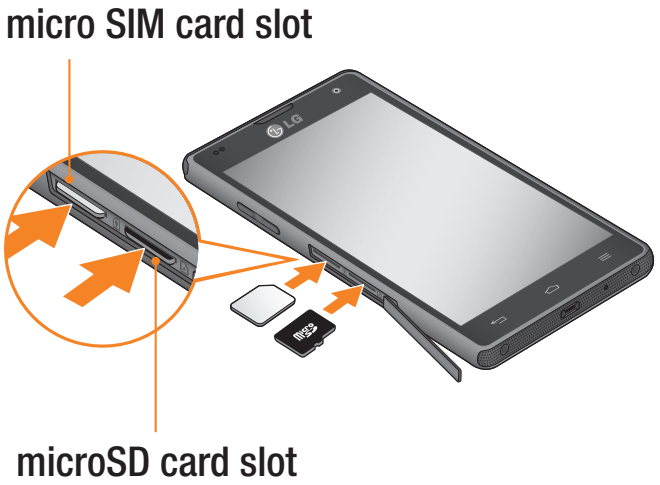
Installing the micro SIM card and microSD card

Before you can start exploring your new phone, you'll need to set it up. To insert the SIM card:

1 Open the micro SIM card and microSD card access panel located on the left side of the phone.

2 Position the micro SIM card into the upper slot (as shown on the next image) and insert it until it clicks into place.

3 Position the microSD card into the lower slot (as shown on the next image) and insert it until it clicks into place.



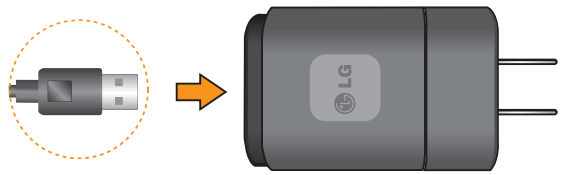
4 Close the micro SIM card and microSD card access panel.

NOTE

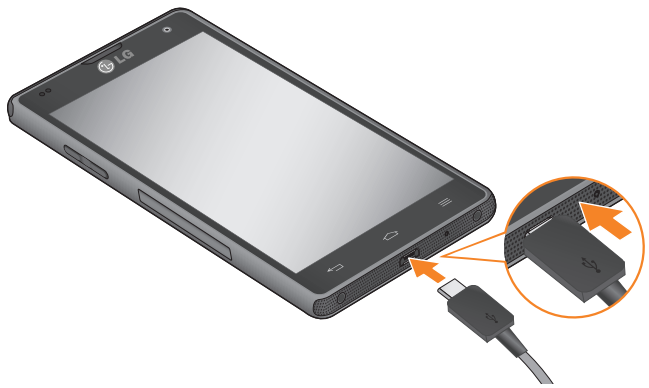
- Turn the phone off before inserting or removing the SIM card.
- This device supports up to a 64GB microSD card.
- Some applications from Play Store store data on the microSD card as well as on the phone. Due to this feature, if you skip the unmount procedure, it can cause an error because information between the microSD card and the phone is not accorded properly. In the worst case, the microSD card can be corrupted or damaged.

Charging your phone

1 Connect the wall adapter and USB cable as shown below. The USB symbol on the USB cable should face toward you.



2 Plug the USB cable (as shown below) into the phone's Charger/Accessory Port. Make sure the USB symbol is facing upwards.



Always unplug the charger from the wall socket after the phone is fully charged to save unnecessary power consumption of the charger.

NOTE

The battery must be fully charged initially to improve battery lifetime.

NOTE

Your phone has an internal antenna. Be careful not to scratch or damage this rear area, as that will cause loss of performance.

When the battery becomes fully discharged and you connect the phone to a charger, the LED lights for the keys at the bottom of the phone will blink. This is normal operation for a completely discharged battery to prevent overflowing current because the phone is designed to provide reasonable protection against damage to the battery. Once the battery has enough charge, the screen will turn on and display a battery image.

Removing the microSD card

To safely remove the microSD card from your phone, you must first unmount it.

1 From the Home screen, tap the **Menu Key** and tap **All settings** > **General** tab > **Storage** > **Unmount SD card** > **OK**.

2 Remove the back cover and gently pull the microSD card from the slot.

Warning

Do not remove the microSD card without unmounting it first. Otherwise, it may damage the microSD card as well as your phone, and the data stored on the microSD card may be corrupted.

Formatting the microSD card

Your microSD card may already be formatted. If it isn't, you must format it before you can use it.

NOTE

All files on the card are deleted when you format the microSD card.

1. From the Home screen, tap the **Menu Key** and tap **All settings** > **General** tab > **Storage** > **Unmount SD card** > **OK**.
2. Tap **Erase SD card** twice.
3. If you set an unlock pattern, enter it and tap **Erase everything**. The card will then be formatted and ready to use.

NOTE

If there is content on your microSD card, the folder structure may be different after formatting since all the files will have been deleted.

Switching between and exiting applications

Multi-tasking is easy with Android because open applications keep running even when you open another application. There is no need to quit an application before opening another. Use and switch among several open applications. Android manages each application, stopping and starting them as needed, to ensure that idle applications don't consume resources unnecessarily.

Switching between applications

- Touch and hold the **Home Key** . A list of recently used applications will be displayed. Then tap the application you want to access.

To stop/exit an application

1. From the Home screen, tap the **Menu Key** and tap **All settings** > **General** tab > **Applications**.
2. Tap one of the tabs at the top of the screen, choose the desired application and tap **Force stop** to stop the application.

Your Home screen

Touch screen tips

With the touch of your finger, you can access available applications, make menu selections, and access data saved to your phone. The following terms are used for describing the different available actions using the touchscreen:

Tap - A single finger tap selects items, links, shortcuts and letters on the on-screen keyboard.

Touch and hold - Touch and hold an item on the screen by touching it and not lifting your finger until an action occurs. For example, to open a contact's available options, touch and hold the contact in the Contacts list until the context menu opens.

Drag - Touch and hold an item for a moment and then, without lifting your finger, move your finger on the screen until you reach the target position. You can drag items on the Home screen to reposition them.

Swipe or slide - To swipe or slide, quickly move your finger across the surface of the screen, without pausing when you first touch it (so you don't drag an item instead). For example, you can slide the screen up or down to scroll through a list, or browse through the different Home screens by swiping from left to right (and vice versa).

Double-tap - Double-tap to zoom on a Web page or a map. For example, quickly double-tap a section of a Web page to adjust that section to fit the width of the screen. You can also double-tap to zoom in and out when using Maps.

Pinch-to-Zoom - Use your index finger and thumb in a pinch or spread motion to zoom in or out when using the browser, Maps, Camera, or browsing pictures.

Rotate the screen - From many applications and menus, the orientation of the screen adjusts to the device's physical orientation.

NOTE

- To select an item, tap the center of the icon.
- Do not to press too hard; the touch screen is sensitive enough to pick up a light, firm touch.
- Use the tip of your finger to tap the option you want. Be careful not to tap any other keys or icons.

Proximity sensor

When receiving and making calls, this sensor automatically turns the backlight off and locks the touch keypad by sensing when the phone is near your ear. This extends battery life and prevents the touch keypad from activating unintentionally during calls.

Lock your phone

When you are not using the phone, press the **Power/Lock Key** to lock your phone. This helps prevent accidental presses and saves battery power.

Also, if you do not use the phone for a while, the Home screen, or other screen you are viewing, is automatically replaced with the lock screen after 30 seconds (default) of inactivity to conserve the battery and prevent pocket dialing.

To wake up your phone, press the **Power/Lock Key**. The lock screen will appear. Swipe the screen in any direction to unlock. The last screen you were working on opens.

NOTE

- The automatic screen timeout can be configured manually in Settings. To change it, tap the **Menu Key** > **All settings** > **Display** tab > **Screen timeout**.
- If there are any programs running when you lock the phone, they may still be running in lock mode. It is recommended that you exit all programs before entering the lock mode to avoid unnecessary charges (e.g., phone call, web access and data communications).

Setting Swipe, Face Unlock, Pattern, PIN, Password to unlock your phone

You can slide the screen without entering any information, utilize facial recognition, draw your own unlock Pattern or enter a PIN or Password to add more security to your device. To set Swipe, Face Unlock, Pattern, PIN, or Password, from the Home screen tap the **Menu Key** > **Lock screen settings** > **Select screen lock**. Then choose from **Swipe**, **Face Unlock**, **Pattern**, **PIN**, or **Password** and enter the desired information.

Caution

You are allowed 5 attempts to enter your screen unlock information. If you used up all 5 opportunities, you will have to wait 30 seconds to attempt unlocking the phone again.

NOTE

The Face Unlock feature is only available after you set up your Google account on your device.

Quick Switch to Silent/Vibrate Mode

To quickly set your phone to silent or vibrate mode, slide the Status Bar down and tap .

Home screen panels

Simply swipe your finger to the left or right to view the different Home screen panels. You can also customize each panel with shortcuts, folders, and widgets, which are shortcuts to your favorite applications.

NOTE

On the Home screen, you can view the Quick Keys at the bottom of the screen. The Quick Keys provide easy, one-tap access to the functions you use the most.

Customizing your Home screen

You can customize your Home screen by adding quick access items, such as shortcuts to an application, widgets, or changing the wallpaper.

- **Apps**: Add shortcuts to applications on the Home screen.
- **Downloads**: Add shortcuts to downloaded applications on the Home screen.
- **Widgets**: Add dynamically updating widgets to your Home screen to allow quick access to applications without opening the full application
- **Wallpapers**: Change the Home screen wallpaper.

To add shortcuts to apps or Widgets on the Home screen:

1. Select a location (Home screen panels) to add an item by swiping the Home screen from left to right or vice versa.
2. Tap the + . Or touch and hold an empty part of the Home screen.
3. Tap the type of item you want to add on the screen: **Apps**, **Downloads**, **Widgets**, or **Wallpapers**.
4. Tap the desired app or widget.
5. You will see a new icon on the Home screen. To place it on a different panel, touch and hold it to drag it to the desired location on the desired panel and release your finger from the screen.

TIP

To add a preloaded application or an application you have downloaded from Play Store to the Home screen, simply touch and hold the icon you want in the Apps screen and drag it to the desired Home screen panel.

NOTE

If there is no available space on a particular Home screen panel, you must delete or remove an item before you can add another item. In this case, you have the option of switching to

another Home screen panel.

To delete an application icon from the Home screen, touch and hold the shortcut icon you want to delete and drag to **Remove** at the top of the screen. When > changes to , lift your finger.

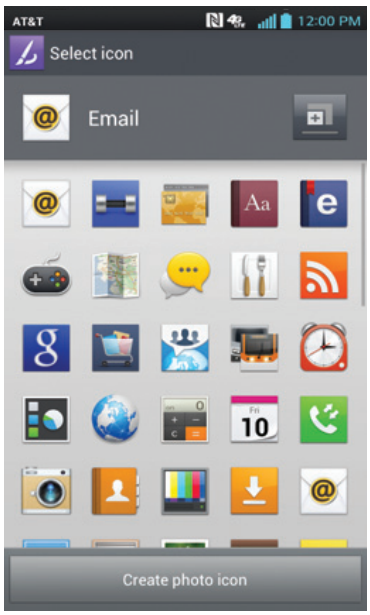
You cannot delete the preloaded applications. (Only their icons can be deleted from the screen).

Customizing apps icons on the Home screen

You can customize each application icon with images from your Gallery.

1 Touch and hold an application icon until it's unlocked from its current position. Then drop it on the screen. The editing icon will appear in the upper right corner of the application.

2 Tap the application icon again and select the desired icon design. Or tap **Create photo icon** to take a new picture or select a picture from the Gallery.



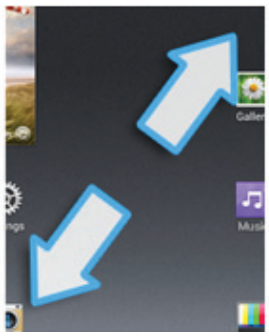
Getting back to a recently used application

1 Touch and hold the **Home Key** . The screen will display the icons of applications that you have used recently.

2 Tap an icon to open its application or tap the **Back Key** to return to the current application.

Home screen clean view

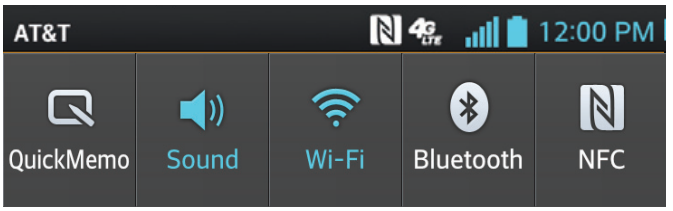
You can see the wallpaper without items on the Home screen by pinching out. Pinch in or tap the **Back Key** to see applications and widgets again.



Notifications Panel

Notification icons on the Status Bar report the arrival of new messages, calendar events, alarms, as well as ongoing events, such as when you are in a call. You can view a list of all recent notifications.

The Notifications Panel runs across the top of your screen.



Touch and hold the Status Bar and slide it down with your finger to open the Notifications Panel. From here, you can check and quickly turn on and off Sound, Wi-Fi, Bluetooth, GPS, and any other options you add.

Viewing the Status Bar

The Status Bar uses different icons to display phone information, such as signal strength, new messages, battery life, and activate Bluetooth and data connections.

Below is a table explaining the meaning of icons you are likely to see in the Status Bar.

[Status Bar]

Icon	Description
	No SIM card inserted
	No network signal available
	Airplane mode is on

Icon	Description
	Connected to a Wi-Fi network
	Wired headset connected
	Call in progress
	Call on hold
	Phone microphone is muted
	Missed call
	Bluetooth is on
	NFC is on
	System warning
	An alarm is set
	New voicemail available
	Ringer is silenced

Icon	Description
	Vibrate mode is on
	Battery fully charged
	Battery is charging
	Phone is connected to PC via USB cable
	Downloading data
	Uploading data
	GPS is on
	Receiving location data from GPS
	Data is synchronizing
	New Gmail message available
	New Google Talk message available
	New message

Icon	Description
	A song is currently playing
	USB tethering is active
	Portable Wi-Fi hotspot is active
	USB tethering and Portable Wi-Fi hotspot are active
	Select input method

On-screen Keyboard

You can enter text using the on-screen keyboard. The on-screen keyboard displays automatically on the screen when you need to enter text. To manually display the keyboard, simply tap a text field where you want to enter text.

There are two types of keypads that you can use: **Android keyboard** and **LG keyboard**.

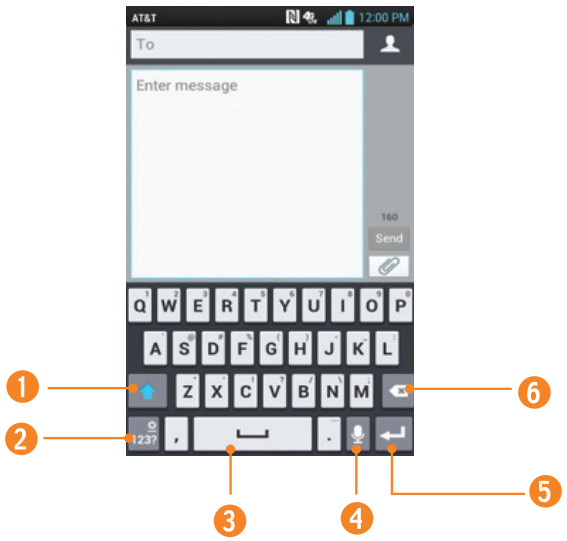
To select the keyboard:

1. Tap the **Menu Key** > **All settings** > **General** tab > **Language & input** > **Default** (Under **KEYBOARD & INPUT METHODS**).
2. Select the default keyboard between **Android keyboard** and **LG Keyboard**.

OR

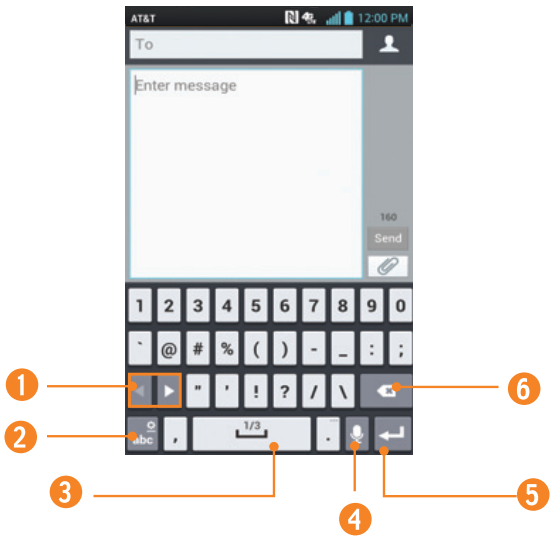
1. While entering text, drag the Status Bar down and tap **Select input method**.
2. Select the desired input method from **Android keyboard**, **Google voice typing** or **LG Keyboard** (default).

LG keyboard - Letters Entry



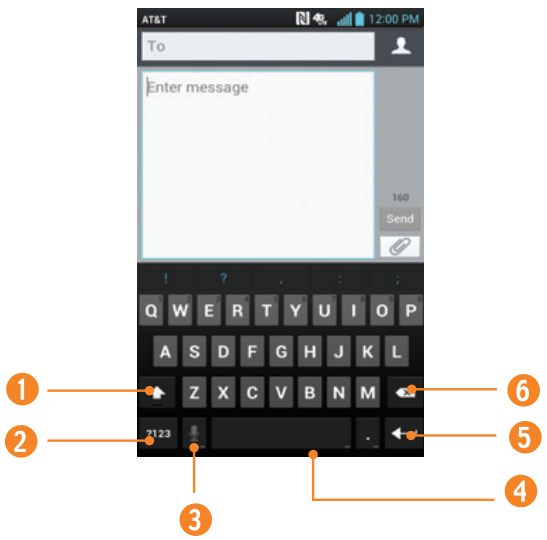
1. **Shift Key** - Tap once to capitalize the next letter you type. Double-tap for all caps.
2. **Number and Symbols/Settings Key** - Tap to change input to number and symbol entry. Touch and hold to set various LG keyboard settings.
3. **Space Key** - Tap to enter a space.
4. **Voice to Text** - Tap to enter text by voice.
5. **Enter Key** - Tap to move the cursor to the next line.
6. **Delete Key** - Tap to delete characters to the left of the cursor.

LG keyboard - Numbers and Symbols Entry



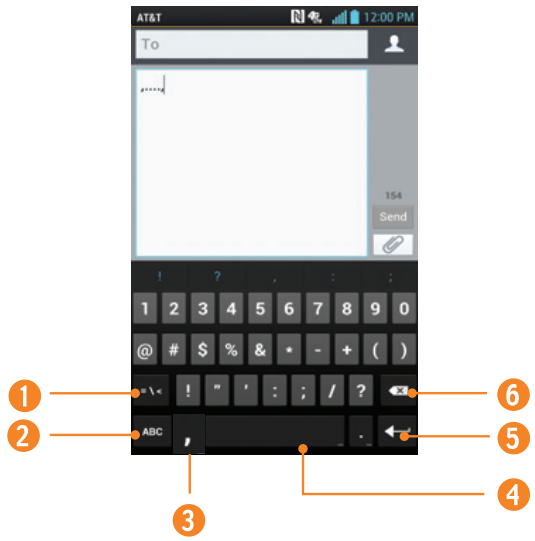
1. **Arrow Keys** - Tap to display additional keyboard layout for other symbols.
2. **Letters/Settings Key** - Tap to change input to letters entry. Touch and hold to set various LG keyboard settings.
3. **Space Key** - Tap to enter a space.
4. **Voice to Text** - Tap to enter text by voice.
5. **Enter Key** - Tap to move the cursor to the next line.
6. **Delete Key** - Tap to delete characters to the left of the cursor.

Android keyboard - Letters Entry



1. **Shift Key** - Tap once to capitalize the next letter you type. Double-tap for all caps.
2. **Number and Symbols Key** - Tap to change input to number and symbol entry.
3. **Voice to Text/Settings Key** - Tap to enter text by voice. Touch and hold to set various keyboard settings.
4. **Space Key** - Tap to enter a space.
5. **Enter Key** - Tap to move the cursor to the next line.
6. **Delete Key** - Tap to delete characters to the left of the cursor.

Android keyboard - Numbers and Symbols Entry



1. **Alt Key** - Tap to enter additional symbols. The keyboard will change to alternate characters.
2. **Letters Key** - Tap to change input to letters entry.
3. **Settings Key** - Touch and hold to set various Android keyboard settings.
4. **Space Key** - Tap to enter a space.
5. **Enter Key** - Tap to move the cursor to the next line.
6. **Delete Key** - Tap to delete characters to the left of the cursor.

123 Mode

This mode allows you to enter numbers in a text message (a telephone number, for example) more quickly. Tap the keys corresponding to the required digits before manually switching back to the appropriate text entry mode by tapping on the LG Keyboard or on the Android keyboard.

Entering Special Characters

The on-screen keyboard allows you to enter special characters (e.g., “á”).

To input the accent, press and hold the desired key (press the “a” key for example).

After the special character appears, slide your finger over it and lift it off it to enter it.

Google Account Setup

The first time you open a Google application on your phone, you will be required to sign in with your existing Google account. If you do not have a Google account, you will be prompted to create one.

Creating your Google account

1. From the Home screen, tap the **Apps Key** .
2. Tap **Settings** > **General** tab > **Accounts & sync** > **ADD ACCOUNT** > **Google** > **Create**.
3. Tap a text field to open the keyboard and enter your name. Then tap **Next**.
4. Enter your username and tap **Next**. Your phone will communicate with Google servers and check for username availability.
5. Enter and re-enter your password. Then follow the instructions and enter the required and optional information about the account. Wait while the server creates your account.

Signing into your Google account

1. From the Home screen, tap the **Apps Key** .
2. Tap **Settings** > **General** tab > **Accounts & sync** > **ADD ACCOUNT** > **Google** > **Existing**.
3. Enter your email and password and tap **Sign in**.
4. After signing in, you can use Gmail™ and take advantages of Google services on your phone.
5. Once you have set up your Google account, your phone will be automatically synchronized with your Google account on the web. (Depending on your synchronization settings.)

After signing in, your phone will sync with your Google services, such as Gmail™, Contacts, Google Calendar, and Picasa photo albums. You can also use Google Maps™, download applications from Play Store™, back up your settings to Google servers, and take advantage of other Google services on your phone.

IMPORTANT

- Some applications, such as Calendar, work only with the first Google Account you add. If you plan to use more than one Google Account with your phone, be sure to sign into the one you want to use with such applications first. When you sign in, your contacts, Gmail messages, Calendar events, and other information from these applications and services on the web are synchronized with your phone. If you don't sign into a Google Account during setup, you will be prompted to sign in or to create a Google Account the first time you start an application that requires one, such as Gmail or Play Store™.
- If you have an enterprise account through your company or other organization, your IT department may have special instructions on how to sign into that account.

Calls

Making a call

1 From the Home screen, tap the **Phone Key** to open the keypad.

2 Enter the number on the keypad. To delete a digit, tap the **Clear Key**.

3 Tap the **Call Key** to make a call.

4 To end a call, tap the **End Key**.

TIP

To enter "+" to make international calls, touch and hold 0 +.

Calling your contacts

1 From the Home screen, tap the **Apps Key** and then tap **Contacts** to open your contacts.

2 Scroll through the contact list or tap the **Search contacts** field and enter the first letter(s) of the contact you want to call. You can also tap the letters at the right side of the screen.

3 In the list that is displayed, tap the contact you want to call. You can also tap the letters at the right side of the screen.

4 In the Contact Info screen, tap the phone number you wish to call.

Answering and rejecting a call

When the screen is locked

When your phone rings, swipe the **Answer** icon in any direction to answer the incoming call.

Swipe the **Decline** icon in any direction to reject an incoming call.

When the screen is unlocked

When your phone rings, tap the **Answer Key**. Tap **Decline Key** to reject an incoming call.

NOTE

Tap or swipe the **Quick msg Key** if you want to send a message to the caller. If the caller is unknown, the **Quick msg Key** is not available.

Adjusting the in-call volume

To adjust the in-call volume during a call, use the Volume Keys on the left side of the phone.

Making a second call

1 During your initial call, tap the **Menu Key** and select **Add call.**

2 Dial the number or search your contacts.

3 Tap the **Call Key** to connect the call.

4 Both calls will be displayed on the call screen. Your initial call will be put on hold.

5 Tap the Call entry on the screen to toggle between active calls or tap **Merge call** to merge the calls.

6 To end active calls, tap the **End Key**. If there is no active call, it will end the call on hold.

NOTE

You will be charged for each call you make.

Viewing your call logs

From the Home screen, tap the **Phone Key** and the **Call logs** tab.

You can view a complete list of all dialed, received, and missed voice calls.

TIP

Tap any single call log entry to view the date, time, and duration of the call.

TIP

Tap the **Menu Key**, then tap **Delete all** to delete all the recorded items.

Call settings

You can configure phone call settings, such as call forwarding, and other special features offered by your carrier.

1 From the Home screen, tap the **Menu Key** and tap **All settings**.

2 Tap **Networks** tab > **Call**.

3 Set any of the available options.

Contacts

You can add contacts on your phone and synchronize them with the contacts in your Google Account or other accounts that support syncing contacts.

Searching for a contact

1 From the Home screen, tap the **Apps Key** and tap **Contacts** > **Contacts** tab to open your contacts.
OR
From the Home screen, tap the **Phone Key** > **Contacts** tab.

2 Tap the **Search contacts** field and enter the contact name using the keypad. You can also tap the letters at the right side of the screen.

Adding a new contact

1 From the Home screen, tap the **Phone Key** and enter the new contact's number. Tap the **Menu Key** > tap **Add to Contacts** and then **Create new contact**.

2 Tap the account where you want to add the new contact. Locations depend on the type of accounts you have added to your device.

NOTE

The entry fields varies depending on the account.

3 If you want to add a picture to the new contact, tap . Choose from **Take photo** or **Select from Gallery.** Then browse for an image and select it.

4 Tap to enter more specific name information.

5 Enter the details about your contact.

6 Tap **Save** to save the contact entry.

Favorite Contacts

You can classify frequently called contacts as favorites.

To add a contact to your favorites

1 From the Home screen, tap the **Apps Key** and then **Contacts** > **Contacts** tab to open your contacts.

2 Tap a contact to view its details.

3 Tap the star to the right of the contact's name. The star turns gold and the contact is added to your favorites.

To remove a contact from your favorites list

1 From the Home screen, tap the **Apps Key**

and then **Contacts** > **Contacts** tab to open your contacts.

2 Tap the **Favorites** tab.

3 Tap a contact to view its details.

4 Tap the gold star to the right of the contact's name. The star turns grey and the contact is removed from your favorites.

AT&T Address Book (AAB)

AT&T Address Book (AAB) is an application that automatically syncs your contacts to an online address book for safekeeping! When you first turn on the phone or change your SIM card and tap Contacts, the AAB application is displayed.

After signing up for this service, your information is synced on a regular basis. You can find more information on this service and access your online address book at www.att.com/addressbook. You can find the synchronization menu for the service by tapping the **Menu Key** > **All settings** > **General** tab > **Account & sync** (from the PERSONAL section) > **AT&T Address Book**.

Messaging/Email

Messaging

Your phone combines text and multimedia messaging into one intuitive, easy-to-use menu.

Inbox view

Messages exchanged with another party are displayed in chronological order so that you can conveniently see an overview of your conversation.

Sending a message

1 Tap **Messaging** on the Home screen, then tap to create a new message.

2 Enter a contact name or phone number in the **To** field. As you enter the contact name, matching contacts appear. You can tap a suggested recipient. You can also add multiple contacts.

NOTE

You will be charged for a text message for every person you send the message to.

3 Tap the text field and start entering your message.

4 Tap the **Menu Key** to open the options menu. Choose from any of the available options.

5 Tap **Send** to send your message.

Warning

The 160-character limit may vary from country to country depending on how the text message is coded and the language used in the message.

Warning

If an image, video, or audio file is added to a text message, it will be automatically converted into a multimedia message and you will be charged accordingly.

NOTE

When you get a text message during a call, there will be an audible notification.

Using smilies

Liven up your messages using smilies.

When writing a new message, tap the **Menu Key** > **Insert smiley**.

Changing your message settings

Your phone's message settings are predefined, so you can send messages immediately. You can change the settings based on your preferences.

▶ From the Home screen, tap **Messaging** > **Menu Key** > **Settings**.

Email

You can use the **Email** application to read email from providers other than Gmail. The Email application supports the following account types: POP3, IMAP and Microsoft Exchange (for Enterprise users).

To open the Email application

▶ From the Home screen, tap the **Apps Key** > **Email** .

The first time you open the **Email** application, a setup wizard opens to help you add an email account.

Microsoft Exchange Email Account

Email address – Enter the account email address.

Username – Enter the account username.

Password – Enter the account password.

Server address – Enter the server address.

Domain – Enter the account domain (optional).

Use SSL – Choose whether or not to use SSL for Microsoft Exchange.

Other (POP3, IMAP) Email Account

Email address – Enter the account email address.

Password – Enter the account password.

Incoming Server Settings

POP3 / IMAP4 – Select protocol type, either POP3 or IMAP4.

Secure type – Choose from Off, SSL, or TLS.

Port number – Normally each account's default number will be displayed.

Advanced Server Settings (Outgoing)

SMTP server – Enter the outgoing email server address.

Secure type – Choose from Off, SSL, or TLS.

Port number – Normally each account's default number will be displayed.

The Accounts Screen

The **Accounts** screen lists your **Combined inbox** and each of your email accounts.

▶ Open **Email** and tap **Menu Key** > **Accounts**.

The Account list appears.

TIP

To make a shortcut to the Inbox of an account:

In the accounts list, touch and hold an email

account. Then tap **Add to home screen**.

You can tap an account to view its **Inbox**. The default account from which you send email is indicated with a checkmark.

To open your Combined inbox

If you have configured email to send and receive email from more than one account, you can view all messages sent to all accounts in your Combined inbox.

- Open the **Accounts** screen and touch **Combined inbox**.

Messages in the **Combined inbox** are color coded on the left, by account, using the same colors used for your accounts in the **Accounts** screen.

When a new email arrives in the inbox, there will be sound and/or vibration notification (depending on your current sound and vibrate settings).

Composing and Sending Email

1. In the **Email** application, tap **Compose** .
2. Enter an address for the message's intended recipient. As you enter text, matching addresses will be offered from your contacts. Separate multiple addresses with commas.
3. Tap the **Cc/Bcc** field to copy or blind copy to other contacts/email addresses.
4. Tap the text field and enter your message.
5. Tap **Attach** to attach the file you want to send with your message.
6. Tap **Send** to send the message.

If you are not ready to send the message, tap **Save** to save it in a **Drafts** folder. Touch a message in the **Drafts** folder to resume working on it. Your message will also be saved as a draft if you touch the **Back Key** before sending it.

Tap **Cancel** to abandon and delete a message, including any saved drafts. If you are not connected to a network, for example if you're working in airplane mode, the messages you send are stored in your **Outbox** folder until you're connected to a network. If it contains any pending messages, the **Outbox** will be displayed on the **Accounts** screen.

NOTE

The messages sent using an Exchange account will not be stored on the phone; they will be stored on the Exchange server itself. If you want to see your sent messages in the **Sent** folder, you may need to open the **Sent** folder and select **Refresh** from the options menu.

Working with Account Folders

Each account has **Inbox**, **Outbox**, **Sent**, **Drafts**, **Trash** and **Junk folders**. Depending on the features your account service provider supports, you may have additional folders.

Adding and Editing Email Accounts

To add an email account

1 From the Home screen, tap the **Apps Key** > **Email** .

2 Select the desired email provider.

If an email account is already set up, the wizard is not activated automatically.

In this case, tap the **Menu Key** > **Add account** on the Accounts screen.

To change account settings

1 Open the **Accounts** screen.

2 Tap the **Menu Key** > **Entire settings**.

To delete an email account

1 Open the **Accounts** screen.

2 Touch and hold the account you want to delete.

3 Tap **Remove account** in the context menu and tap **Yes** in the dialogue box to confirm

Social Networking

With your phone, you can enjoy social networking and manage your micro-blog in on-line communities. You can update your current status, upload photos, and view your friends' status updates in real-time.

You can add your Facebook and Twitter and accounts to your phone. If you don't have an account, you can visit their sites to set one up.

NOTE

Additional costs may be incurred when connecting and using online services. Check your data charges with your network provider.

Adding an account to your phone

1 From the Home screen, tap the **Menu Key** > **All settings** > **General** tab > **Accounts & sync**.

2 Tap **ADD ACCOUNT**.

3 Tap any social networking service you want to use.

4 Enter your email address and password that you set up for your social networking account, then tap **Log in**.

Adding a social networking widget on the Home screen

If you add a social networking widget on your Home screen, the widget will show your status when your phone receives updates from the network.
You can also access the social community directly by tapping the widget.

1 Touch and hold an empty spot on the Home screen.

NOTE

If there is no available space on a particular Home screen panel, you won't be able to add any widget; you must delete or remove an item before you can add another item. In this case, you have the option of switching to another Home screen panel.

2 Tap the **Widgets** tab and scroll to the right until you see **Social**+.

3 Tap **Social**+ to add it to the Home screen panel.

Viewing and updating your status

1 Go to the Home screen panel where the **Social+** widget is located. You can see the current status of social applications you set.

2 You can select each social application you'd like to view. Tap the arrow (for example,

on the upper left corner of the widget) and tap the social application you'd like to display.

3 Tap to update your status with comments or upload pictures.
- Check all the social applications you'd like to update. It will simultaneously update all.

4 After entering comments and attachment (if any), tap .

TIP

You can use information about friends only in your social network(s) or sync all data to Contacts.

Syncing accounts on your phone

You can sync information from your social networking accounts with your Contacts and other functions on your phone, if applicable.

1 From the Home screen, tap the **Menu Key** > **All settings** > **General** tab > **Accounts & sync**.

2 Check that the button at the top right corner of the Accounts & sync screen is to the right. If the button is blue and displays ON, synchronization is activated.

3 Tap the account you want to sync.

4 Check the sync options, such as **Sync Contacts**.
A checkmark indicates that synchronization has been enabled.

Removing accounts on your phone

1 From the Home screen, tap the **Menu Key** > **All settings** > **General** tab > **Accounts & sync**.

2 Tap the account(s) you want to delete, then **Menu Key** > **Remove account** > **OK**.

Camera

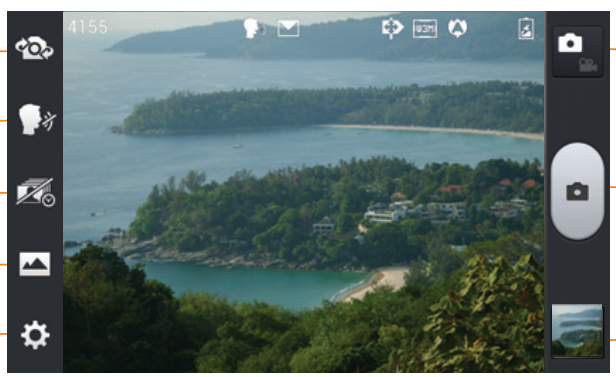
Getting to know the viewfinder

To open the Camera application, tap **Camera** on the Home screen.

Time catch shot – Allows you to capture the missing moment by taking five sequential pictures at once before the shutter key is touched.

Cheese shutter – Allows you to turn on or off the voice shot. When on, you just say Cheese, Smile, Whisky, Kimchi or LG to take a photo.

Swap lens – Allows you to swap between the rear camera lens and the front camera lens.



Mode Switch – Tap this icon to switch between Camera mode and Video mode.

Capture – Allows you to take a photo.

Gallery – This enables you to access your saved photos and videos within the camera mode. Simply tap and your Gallery will appear on the screen.

Settings – Tap this icon to open the settings menu. See **Using the advanced settings** on page 40.

Shot mode – Allows you select the shot mode from Normal, HDR, Panorama, and Continuous shot.

Taking a photo

1 From the Home screen, tap **Camera** .

2 Holding the phone horizontally, point the lens towards the subject you want to photograph.

NOTE

To zoom in, press the Volume Keys.

3 A focus box will appear in the center of the viewfinder screen. You can also tap anywhere on the screen to focus on that spot.

4 When the focus box turns green, the camera has focused on your subject.

5 Tap **Capture** lightly.

NOTE

If you set Auto review to off, the camera will take pictures continuously while holding down **Capture** .

Once you've taken the photo

Your captured photo will appear on the screen if Auto review is set to On (refer to Using the advanced settings).

Share Tap to share your photo as**, AT&T Locker**, **Bluetooth**, **Email**, **Facebook**, **FileShare**, **Gmail**, **Google+**, **Messaging**, **Note Pad**, **Picasa**, **Social+**, **Twitter**, or any other downloaded applications that is supported.

NOTE

Additional charges may apply when multimedia messages are sent while roaming.

Set as Tap to use the image as **Contact photo**, **Home screen wallpaper**, or **Lock screen wallpaper**.

Tap to delete the image.

Tap to take another photo immediately. Your current photo will be saved.

Tap to view the Gallery of your saved photos.

Using the advanced settings

In the viewfinder, tap to open the advanced options.

You can change the camera settings by scrolling the list. After selecting the option, tap the **Back Key** .

Edit quick menu - Tap to edit the quick menus displayed on the viewfinder.

Flash - Tap to turn the flash **On** or **Off** or set it to **Auto**

Zoom - Zoom in or zoom out. Alternatively you can use the Volume Keys.

Brightness - Defines and controls of the amount of sunlight entering the lens. Slide the brightness indicator along the bar towards "-" for a lower brightness video, or towards "+" for a higher brightness video.

Focus - Tap to select the focus mode.

Auto: Allows the camera to focus automatically. (The camera continuously focuses on the objects in the photo)

Face tracking: The camera detects and focuses on human faces automatically.

Image size - Tap to set the size (in pixels) of the picture you take. Select a pixel value from the following options: **8M(3264X2448)**, **W6M(3200X1920)**, **5M(2560X1920)**, **3M(2048X1536)**, **W3M(2240X1344)**, **1M(1280X960)**, **W1M(1280X768)**.

Scene mode - Select the color and light settings appropriate for the current environbment.

Normal: Automatically adjusts according to the environment.

Portrait: Use this mode to capture people.

Landscape: Use this mode to capture natural scenery such as trees, flowers and sky.

Sports: Use this mode to capture sports scenery.

Sunset: Use this mode to capture the sunset scenery.

Night: Use this mode to capture the night scenery. Slow shutter speeds are used to detect night landscape.

Smart shutter: Capture fast-moving images without subject blur indoor.

ISO - Control the camera's sensitivity to light. Choose from **Auto**, **400**, **200**, and **100**.

White balance - The white balance ensures any the white areas in your picture are realistic. To enable your camera to adjust the white balance correctly, you may need to determine the light conditions. Choose from **Auto**, **Incandescent**, **Sunny**, **Fluorescent**, and **Cloudy**.

Color effect - Choose a color tone for your new photo.

Timer - The self-timer allows you to set a delay after the shutter is pressed. Select **Off**, **3 sec**, **5 sec**, or **10 sec**. This is ideal if you want to be included in a photo.

Geotagging - Activate to use your phone's location-based services. Take pictures wherever you are and tag them with the location. If you upload tagged pictures to a blog that supports geotagging, you can see the pictures displayed on a map.

NOTE

This function uses wireless networks. You need to checkmark Google's location service.

From the Home screen, tap the **Menu Key** > **All settings** > **General** tab > **Location services** > **Google's location service**.

Shutter sound - Select one of the four shutter sounds.

Auto review - If you set Auto review on, it will display the picture that was just taken automatically.

Storage - Allows you to choose where to save your pictures. Choose from **SD card** and **Internal storage**.

Reset - Restore all camera default settings.

Camera help guide - Tap whenever you want to know how a function operates. This will provide you a quick guide.

NOTE

- When you exit the camera, some settings will return to their defaults. Check the camera settings before you take your next photo.
- The settings menu is superimposed over the viewfinder, so when you change elements of the image color or quality, you will see a preview of the image change behind the settings menu.

Viewing your saved photos

You can access your saved photos from within the camera mode. Just tap the image preview at the bottom of the camera screen.

TIP

Flick left or right to view other photos or videos.

Tap the screen to display other options menus.

– Tap to share the photo using SmartShare (turn on Wi-Fi if it's not already on).

– Tap to edit the photo.

– Tap to take a new photo.

– Tap to share the photo via various methods such as Bluetooth, or Messaging.

– Tap to delete the photo

Menu Key - Tap to access **Set image as, Move, Copy**, **Rename**, **Rotate left**, **Rotate right**, **Crop**, **Slideshow**, or **Details**.

Setting a photo as wallpaper

1. Tap the photo you want to set as wallpaper to open it.
2. Tap the **Menu Key** > **Set image as** > **Home screen wallpaper**.
3. Crop the image as desired and tap **OK**.

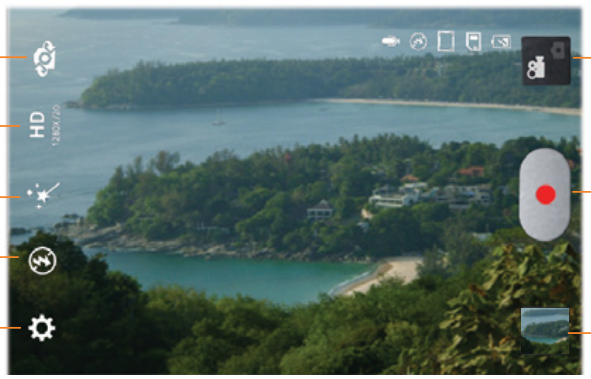
Video Camera

Getting to know the viewfinder

Brightness – Defines and controls of the amount of sunlight entering the lens. Slide the brightness indicator along the bar towards "-" for a lower brightness video, or towards "+" for a higher brightness video.

Resolution – Define the resolution from Full HD (1920x1080), HD (1280x720), TV(720x480), VGA(640x480), QVGA(320x240), MMS(QCIF-176x14).

Swap lens – Allows you to swap between the rear camera lens and the front camera lens.



Mode Switch – Tap this icon to switch between Camera mode and Video mode.

Record – Allows you to start recording.

Gallery – This enables you to access your saved photos and videos from within the video camera mode. Simply tap and your Gallery will appear on the screen.

Settings – Tap this icon to open the settings menu. See **Using the advanced settings** on page 44.

Live Effect – Allows you to put various effects when recording a video. Choose an effect and tap .

Recording a video

1 From the Home screen, tap **Camera** and tap the **Camera mode** button to change to Video mode. The Capture icon will change to .

2 The video camera's viewfinder will appear on the screen.

3 Holding the phone horizontally, point the lens towards the subject of the video.

4 Tap **Record** once to start recording.

5 A timer showing the length of the video is displayed at the bottom right corner of the screen.

6 Tap **Stop** to stop recording.

After recording a video

A still image representing your video will appear on the screen if Auto review is set to On.

Play : Tap to play the video.

Share : Tap to share your photo via, **AT&T Locker**, **Bluetooth**, **Email**, **Facebook**, **FileShare**, **Gmail**, **Google+**, **Messaging**, **Social+**, **YouTube**, or any other downloaded applications that is supported.

NOTE

Additional charges may apply when MMS messages are downloaded while roaming.

Tap to delete the video you just recorded. Tap **Yes** to confirm it. The viewfinder will reappear.

Tap to record another video right away. Your current video will be saved.

Tap to view the Gallery of your saved videos.

Using the advanced settings

Using the viewfinder, tap to open the advanced options.

Adjust the video camera settings by scrolling the list. After selecting the option, tap the **Back Key** .

Edit quick menu - Edit the quick menus displayed on the viewfinder.

Zoom - Zoom in or zoom out. Alternatively you can use the Volume Keys.

Brightness – Defines and controls of the amount of sunlight entering the lens. Slide the brightness indicator along the bar towards "-" for a lower brightness video, or towards "+" for a higher brightness video.

White balance – The white balance ensures any the white areas in your video are realistic. To enable your camera to adjust the white balance correctly, you may need to determine the light conditions. Choose from **Auto**, **Incandescent**, **Sunny**, **Fluorescent**, and **Cloudy**.

Color effect – Choose a color tone to use for your new video.

Geotagging – Activate to use your phone's location-based services. Take videos wherever you are and tag them with the location. If you upload tagged videos to a blog that supports geotagging, you can see the videos displayed on a map.

Audio recording – Allows you to choose if you want to record a video with or without sound.

Auto review – If you turn Auto review on, it will play back the video you just recorded automatically.

Storage - Allows you to choose where to save your pictures. Choose from **SD card** and **Internal storage**.

Reset – Restore all video camera default settings.

Video help guide – Tap whenever you want to know how a function operates. This will provide you a quick guide.

Watching your saved videos

1. In the viewfinder, tap image preview at the bottom of the camera screen.
2. Your Gallery will appear on the screen.
3. Tap a video to play it automatically.

Adjusting the volume when viewing a video

To adjust the volume of a video while it is playing, use the Volume Keys on the left side of the phone.

Multimedia

You can store multimedia files to a microSD card or internal memory to have easy access to all your image and video files.

Gallery

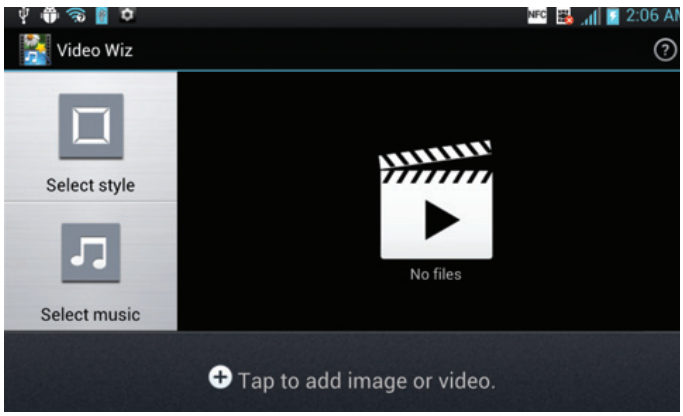
From the Home screen, tap the **Apps Key** > **Gallery** .

Video Wiz

You can make your own movie using your images/video and music.

1 From the Home Screen, tap the **Apps Key** > **Video Wiz** .

2 After seeing the brief introduction on the Steps, tap **OK**.



3 Tap to add images and/or video to your movie.

4 Tap images and/or videos to make a video with, then tap .

- To remove images or videos, tap and tap . Then, tap .
- To rearrange them, touch and hold an image/video, drag and drop it to the desired position.

5 Tap **Select style** to select the desired movie style.

- Scroll through and select the style you want. As you tap the desired style, preview is displayed.
- Tap **OK**.

6 Tap **Select music** to set the background music.

- Select **Default for this style** or **Music track**.

7 Tap to play your movie.

8 Tap to edit the video clip using **Text**, **Sticker** or **Magic spot**.

- After editing the video, tap .

9 Tap to save the video.

10 Tap to clear it up.

NOTE

Tap if you want to see Help information about Video Wiz.

Music

Your phone has a music player that lets you play all your favorite tracks. To access the music player from the Home screen, tap the **Apps Key** and tap **Music**.

How to save music/video files to the phone

Connect your phone to the PC using the USB cable.

You'll receive a notification that the USB is connected and the USB connection type prompt is displayed. Tap **Media sync (MTP)** or **Camera (PTP)** and open the folder you wish to view from your computer.

Save music or video files from the PC to the phone's removable storage.

- You may copy or move files from the PC to the phone's removable storage using a card reader.
- If there is a video file with a subtitle file (.smi file with the same name as the video file), place them in the same folder to display the subtitle automatically when playing the video file.
- When downloading music or video files, copyright must be secured. Please note that a corrupted file or file with a wrong extension may cause damage to the phone.

How to play music/video files on the phone

Playing music/video files

Locate the file you want in the Gallery or Music Player applications and tap it to play it.

Playing a song

1. From the Home screen, tap the **Apps Key** and tap **Music**.
2. Tap the **Songs** tab.
3. Tap the song you want to play.
4. Tap to pause the song.
5. Tap to skip to the next song.
6. Tap to go back to the beginning of the song. Tap twice to go back to the previous song.

To change the volume while listening to music, press the Volume Keys on the left side of the phone.

To display the options for a song, touch and hold any song in the list. You will see the following options: **Play**, **Add**

to playlist, **Share**, **Set as ringtone**, **Delete**, **Details**, and **Search**.

Working with Playlists

You can create playlists to organize your music files into sets of songs, which you can play in the order you set or in a shuffle.

To create a playlist

1 When viewing the library tap the **Playlists** tab.

2 Tap the **Menu Key** > **New playlist.**

3 Enter a name for the playlist, then tap **OK**.

4 Select the songs you want to add to the playlist and tap **Add**. The new playlist is added to the **Playlists** library.

To add a song to a playlist

Touch and hold a song and tap **Add to playlist**. Then choose the name of the playlist. You can also add the song that is playing in the Playback screen by pressing the **Menu Key** then tapping **Add to playlist** and selecting the desired playlist.

To remove a song from a playlist

1 Open a playlist.

2 Touch and hold the song you want to remove, then tap **Remove from playlist**

To rename or delete a playlist

1 Open the **Playlist** library.

2 Touch and hold the playlist to display the options menu, then tap **Delete** or **Rename**.

NOTE

Music file copyrights may be protected by international treaties and national copyright laws. Therefore, it may be necessary to obtain permission or a licence to reproduce or copy music. In some countries, national laws prohibit private copying of copyrighted material. Before downloading or copying the file, please check the national laws of the relevant country concerning the use of such material.

FileShare

The FileShare application allows you to share multimedia files and documents to other devices via Wi-Fi Direct.

1 Tap the **Apps Key** > **Share** > **FileShare**.

2 Choose the types of content you would like to share. Tap **Images**, **Videos**, **Music**, or **Documents**.

3 Tap in the upper right corner of the screen, then checkmark the file(s) you want to share.

4 Tap **Send** to begin scanning for available devices, then select the device you want from the list.

Using SmartShare

The SmartShare application uses DLNA (Digital Living Network Alliance) technology to share digital content through a wireless network. Both Phones must be DLNA certified to support this feature.

To turn SmartShare on and allow sharing contents

1 Tap the **Apps Key** > **Share** > **SmartShare**.

2 Tap the **Menu Key** > **Settings**.

3 Tap **Discoverable** to allow your device to be detected by other devices.

- Tap **Always accept requests** if you would like to automatically accept sharing requests from other devices.
- Tap **Receive files** if you would like to allow the other devices to upload media files to my phone.

4 Under the SHARED CONTENTS section, tap to checkmark the types of content you would like to share. Choose from **Photos**, **Videos**, and **Music**.

5 SmartShare is now activated and ready to share contents.

To control your renderer devices

Let your renderer device (e.g. TV) play multimedia contents from your remote content library (e.g. PC)

NOTE

Make sure that the DLNA functionality of your devices is properly configured (e.g. TV and PC)

1 Tap the **Apps Key** > **Share** > **SmartShare**.

2 Tap the **To** button and select the device

from the renderer device list.

3 Tap the **From** button and select the device from the remote content library.

4 You can browse the content library.

5 Tap the **Menu Key** > **Play**.

To share contents from your phone to your renderer device(e.g. TV)

NOTE

Make sure that your renderer device is properly configured.

1 While viewing your pictures or videos using the **Gallery** application, tap / / at the top of the screen.

2 Select the device from renderer lists to play the files.

NOTE

Follow the similar steps to use the **Music Player** and **Videos** to share contents.

: Need to be connected network

: Select the device on network

: Currently, the content is being shared through SmartShare.

NOTICE

Check that your device is connected with your home network using Wi-Fi connection to use this application. Some DLNA enabled devices (e.g. TV) support only the DMP feature of DLNA and will not appear in the renderer device list. Your device might not be able to play some contents

To download contents from the remote content library

1 Tap the **Apps Key** > **Share** > **SmartShare**.

2 Tap the **From** button and select the device from the remote content library.

3 You can browse the content library.

4 Tap and hold a content thumbnail and then touch **Download.**

NOTICE

A few types of contents are not supported.

To upload contents from the remote content library

NOTE

Make sure that the microSD card is correctly mounted and the **Receive files** option in the Settings menu is checked.

1 Tap the **Apps Key** > **Share** > **SmartShare**.

2 Tap the **From** button and select **My phone**.

3 You can browse the content library.

4 Tap and hold a content thumbnail and then touch **Upload**.

5 Select a device of remote content library to be uploaded.

NOTICE

Some DLNA enabled devices do not support the DMS upload functionality and will not upload files. A few types of contents are not supported.

Media Home

You can play videos or music files, or view photos stored in the phone on HDMI-enabled products such as a smart TV or monitor.

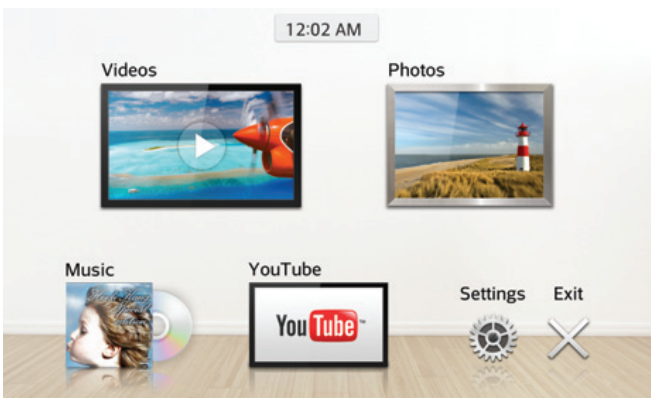
Tip

Once you connect your device to a TV or monitor via a MHL cable, Media Home will be launched automatically. Any apps that are running will be interrupted, including playback of DivX VOD movies.

1 Connect the phone and HDMI-enabled TV or monitor with an MHL cable (sold separately). Media Home will automatically run.

- When **Auto-launch and auto-off** is set to off, slide the Status Bar down and tap **Media Home**.

2 Select a video, music, or picture to view it on the TV or monitor.



3 Tap to configure the following settings:

- **Auto-launch and auto-off**: Place a checkmark on this to launch Media Home automatically when a device is connected to an MHL cable or desk cradle.

- **Video settings**: Allows you to view group videos by folders or how to sort the list.
- **Photo settings**: Allows you to sort the list or set slideshow settings.
- **Screen saver settings**: Allows you configure the type and album to use for the slideshow.

Google Applications

About Google applications

Google applications, including mobile versions of Gmail, Google Talk, Google Calendar, and Google Maps, are loaded on your phone.

1 To set up a Google account, tap any Google application, enter your user name and password and sign in.

2 After signing in, your contacts, email, and calendar in your Google account will automatically synchronize with your phone.

Google Maps™

To open Google Maps and view your location

1 From the Home screen, tap the **Apps Key** and tap **Maps**.

2 Tap the **My location** icon on the screen.

The map centers on a blue arrow that indicates your location. A blue circle around the arrow indicates that your actual location is within the circle.

Tip

While viewing a map, tap the **Menu Key** for the following options: **Clear map**, **Make available offline, Settings** and **Help**.

To get an address and additional information for a location

1 Touch and hold a location on the map. A balloon with the address and a thumbnail from Street View (if available) opens over the location.

2 Tap the balloon to access additional options.

To view map, satellite, or traffic layers

- Tap the **Layers** icon on the map and select a layer option. You can choose from Traffic, Satellite, Terrain, Latitude, and others.

Searching For Locations and Places

You can search for a location and view it on a map. You can also search for places on the map that you're viewing.

To search for a location

1 While viewing a map, tap at the bottom of the screen. You can also touch and hold the **Menu Key** .

2 In the search box, enter the place you're looking for. You can enter an address, a city, or a type of business or establishment. For example, "theater in New York".

3 Tap the **Search** icon on the keyboard.

Markers with letter labels indicate search matches on the map.

NOTE

Location information might be inaccurate if GPS and Wi-Fi is turned off. Please make sure that GPS and Wi-Fi is turned on.

Getting Directions

To get directions

1 While viewing a map, tap .

2 Enter a starting point in the top text box and your destination in the bottom text box.

To reverse directions, tap the **Menu Key** and tap **Reverse Start & End**.

3 Tap the icon for car, public transit, or walking directions.

4 Tap **GET DIRECTIONS**. The directions to your destination appear as a route.

To view turn-by-turn navigation directions

You can view each turn in your route as a list of written directions.

When searching for directions, tap **NAVIGATION** instead of **GET DIRECTIONS** to view turn-by-turn directions in Navigation View.

To search for locations along your route

You can search for businesses, points of interest, and other features along your route. When you search while navigating, your results include locations along your route, rather than locations that are near your current location.

- Touch and hold the **Menu Key** and search for locations of interest.

  The results are displayed as markers along your route; the first result is labeled. You can tap a label for more information about the marker.

- When you're finished, tap the **Navigation** icon to return to Navigation View.

Clear Map

Clear any information, such as routes and search results, from the map.

To clear a map

While viewing a map, tap the **Menu Key** and tap **Clear Map**.

Latitude

Finding Your Friends with Google Latitude™

Google Latitude lets you and your friends view each others' locations on maps and get directions to your friends' locations using Google Latitude. Your location is not shared automatically. It is by invitation only.

You must join Latitude and then invite your friends to view your location or accept invitations from your friends.

To join Latitude

- While viewing a map, tap and then **Latitude**.

  The first time you join Latitude, you're prompted to accept or reject the Google privacy policy. After you've joined Latitude, the Join Latitude option changes to **Latitude**.

To open Latitude

After you join Latitude, you can open it to find your friends and view their updates.

- While viewing a map, tap and then **Latitude**.

To invite friends to share their locations

After you join Latitude, you can start sharing your location with your friends. Only friends whom you have explicitly invited or accepted can see your location.

1. Open **Latitude** and tap .
2. Tap **Select from Contacts** or **Add via email address** in the menu that opens.
3. Tap **Add friends** at the bottom of the screen. If your friends already use Latitude, they receive an email request and a notification on Latitude. If they have not yet joined Latitude, they receive an email inviting them to sign in to Latitude with their Google Account.

Places

To find places

Tap the **Places** icon while in Google Maps to find different venues, such as gas stations, coffee, bars, restaurants, etc.

Once you select a category, you will see a list

of closest matches, including their distance, compass bearing, description and even user reviews. You can customize your own location search categories, and even add the Places icon to your Home screen.

Play Store™

Play Store™ lets you browse through and download thousands of fun and useful applications and games. You can check other users' comment regarding an application or you can post your own comments. If you install applications and games from Play Store™, they appear in the phone's menu below the preloaded applications, and you can find them by scrolling down with your finger. You can open downloaded applications from the Play Store by tapping the **Menu Key** > **My Apps**.

NOTE

To purchase a paid app, you'll need to set up a payment method with Google Checkout™. You have the option to use a credit card or charge to your carrier bill.

NOTE

When you want to exit a game or application, use the **Home** or **Back Key**, which will return you to the Home screen. Or select Menu (or Options) within the game or application and select Exit. (Exit option may vary by game/application). Ending applications that continue to run in the background (after going back to the Home screen) will help conserve battery life and reduce unwanted data usage.

Gmail™

Gmail™ can be configured when you first set up your phone. Depending on your synchronization settings, Gmail™ on your phone is automatically synchronized with your Gmail™ account on the web.The inbox conversations list is your default Gmail™ view.

Tap to send or receive new email and to synchronize your email with your Gmail™ account on the web. Tap the **Menu Key** for the following additional options: **Label settings**, **Settings**, **Help**, and **Send feedback**.

Compose - Allows you to compose a new message.

Search - Allows you to search your account.

Labels - Allows you to view the account's labels.

Refresh - Allows you to refresh the account to view new activity.

Google Talk™

Google Talk™ is Google's instant messaging program. It lets you communicate with other people who also use Google Talk™.

The following options are available.

Add friend - Send invitations to chat.

Search - It searches for contacts to chat with or any chat records that contain the word(s) you entered.

Tap the **Menu Key** for the following options:

Display options - Allows you to change the way your contacts are displayed.

Sign out - Sign out from chat.

Settings - Allows you to adjust various settings.

Help - Allows you to view help topics about Talk.

Send feedback - Allows you to send feedback about Talk to Google.

Changing Google Talk Settings

You can configure Google Talk to send you a notification of each message that you receive in a chat and also to sound a ringtone or vibrate the phone.

You can also configure Google Talk to sign you in automatically when you turn on your phone, and you can set whether the mobile indicator is displayed next to your name in other people's Friends lists.

To configure notifications for new Google Talk messages

1. From the Friends list, tap the **Menu Key** , then tap **Settings**.
2. Tap the desired account. Then tap **Invitation notifications** to receive a notification in the Status Bar when a new chat message arrives.
3. Tap **IM notifications** and **Video chat notifications** to receive notifications in the Status Bar when you receive new chats.
4. Tap **Notification ringtone** and **Video chat ringtone** to choose a ringtone that will ring to notify you of a new chat.

5 Tap **Vibrate** in the Chat notifications and Voice & Video Chat sections to choose the vibration setting when you receive a notification of a new chat.

To show or hide the mobile indicator to friends

1 From the Friends list, tap the **Menu Key** , then tap **Settings**.

2 Checkmark or uncheck **Mobile indicator**.If Mobile indicator is checkmarked, your friends see an outline of an Android™ next to your name in their Friends list when you are signed into Google Talk on an Android phone.

To set Google Talk to change your status

1 From the Friends list, tap the **Menu Key** , then tap **Settings**.

2 Checkmark or uncheckmark **Away when screen off**.
When Away when screen off is checkmarked, your status will automatically be changed to Away when the screen is turned off.

QSlide Function

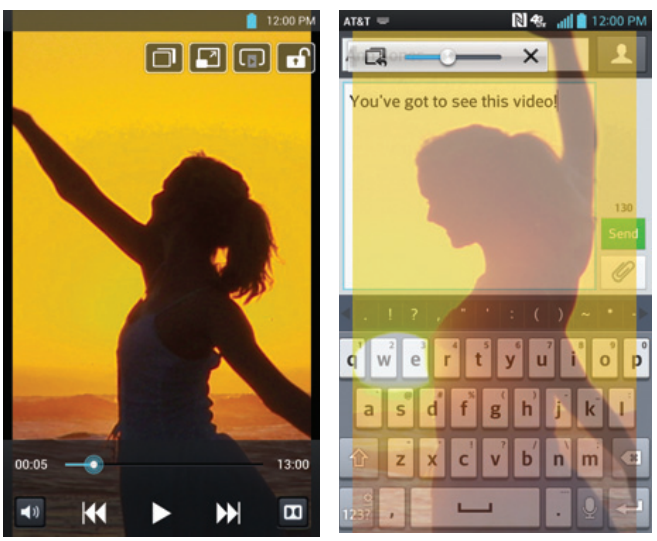
The QSlide function enables an overlay on your phone's display for easy multitasking.

1 While watching an on-device video, tap . The video continues to play as an overlay on your phone.

2 Use the slider to adjust the transparency of the overlay.

3 Tap **Messaging** to send a text while in QSlide mode. You can also make a call, browse the web, or choose other phone options.

4 Tap to exit the QSlide function.

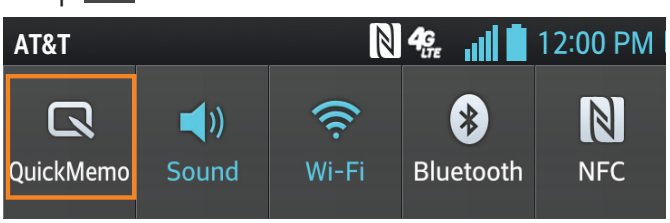


QuickMemo

The **QuickMemo** feature allows you to create memos and capture screen shots.

You can use **QuickMemo** to easily and efficiently create memos during a call, with a saved picture or on the current phone screen.

1 While viewing the screen you want to capture and create a memo on, press and hold both Volume Keys at the same time for one second to access the **QuickMemo** feature.
OR
Touch and drag the Status Bar down and tap .



2 Create a memo using the following options:

- Tap to keep the memo on top and and continue using the phone. Tap to exit the overlay mode.
- Tap to select whether to use the background screen.

- Tap to undo the most recent action.
- Tap to redo the most recently deleted action.
- Tap to select the pen type and color.
- Tap to use the eraser to erase the memo that you created.
- Tap to share the memo with others via any of the available applications.
- Tap to save the memo you've created.

NOTE

Please use a fingertip while using the QuickMemo feature. Do not use your fingernail.

3 Tap . You can also crop the image using the triangles in each corner. Touch and drag to the desired part of the screen.

4 Tap to show the Edit menu and tap to save the current memo.

Discard QuickMemos:

▶ Tap the **Back Key** .

View the Saved QuickMemo

From the Home screen, tap > **Gallery** and select the **QuickMemo** album.

Setting the alarm

1 From the Home screen, tap the **Apps Key** and tap **Clock** .

2 To add a new alarm, tap the tab (if necessary).

3 Tap and set the alarm time.

4 Set any desired options and tap **Save**.

5 Tap the **Menu Key** to delete all alarms or adjust the alarm settings.

Using the calculator

1 From the Home screen, tap the **Apps Key** and tap **Calculator** .

2 Tap the number keys to enter numbers.

3 For simple calculations, tap the function you want + − × ÷, followed by =.

4 For more complex calculations, tap the **Menu Key** , tap the **Advanced panel**, then choose an option.

Adding an event to your calendar

NOTE

You must create a Google account to use Calendar.

1 From the Home screen, tap the **Apps Key** and tap **Calendar** .

2 To view an event, tap the date. The events occurring on that date are displayed below the Calendar in Month view. Tap the event to view its details. If you want to add an event, tap at the top right corner of the Calendar.

3 Tap the **Event name** field and enter the event name. Check the date and enter the start and end time you want your event to begin and finish.

4 Tap the **Location** field to enter the location.

5 To add a note to your event, tap the **Description** field and enter the details.

6 To repeat the event, set **REPEAT** and **REMINDERS**, if necessary.

7 Tap **Save** to save the event in the calendar. A colored square in the calendar will mark all days that have saved events. An alarm will sound at the event start time if you set it.

Changing your calendar view

1 From the Home screen, tap the **Apps Key** and tap **Calendar**.

2 At the top of the Calendar, tap and choose from **Day**, **Week**, **Month**, or **Agenda**.

Polaris Office

With Polaris Office, you can view, create and edit document files on your device. The loaded files can be from microSD cards of your device, or from downloaded email attachments.
The Polaris Office application supports the following file formats: txt, doc, docx, xls, xlsx, ppt, pptx, pdf.

Create a New Document

1 From the Home screen, tap the **Apps Key** > **Polaris Office 4.0**.

2 Register your name and email address on the Registration page.

3 Tap **All**, **Form types**, or **Favorites** to search for documents on your microSD card.

4 Tap to start a new document.

5 Tap a document type.

6 Enter contents in the document using the tools at the top of the screen and the on-screen keyboard.

7 When you're done working on the document, tap > **Save** (or **Save as** to enter a new document name) to save.

8 Enter the document name and tap **Save**.

9 Tap the **Back Key** to exit.

View and edit a document on your device

1 From the Home screen, tap the **Apps Key** > **Polaris Office 4.0**.

2 Tap **All**, **Form types**, or **Favorites** to search for documents on your microSD card.

3 Tap the document that you want to view or edit.

NOTE

You can also open an attachment in an email by tapping the attachment in the message.

4 The document opens for you to view. If you want to edit it, tap anywhere on the document.

- To move between pages or pan through the document, scroll in the corresponding direction.
- To change the zoom level, simply pinch-to zoom to achieve the zoom level you want.
- Use the toolbar at the top of the screen to edit the document (Word, Excel, or PowerPoint file).
- Tap for the following additional menu options : **Save**, **Save as**, **PDF Export**, **Find & Replace**, **Page layout**, **Full width view**, **Reflow text**, and **TTS**.

5 When you're finished editing, tap > **Save**. Then tap the **Back Key** to exit.

Polaris Office toolbar

The Polaris Office application has a toolbar that appears automatically when you create a document.

1 To display the toolbar in an existing document, tap .

2 Tap the **Font**, **Paragraph**, or **Style** tab and choose the desired options.

3 To hide the tool options pop-up balloon, tap .

Voice Command

You can search for and dial a contact by speaking, rather than by manually dialing a contact.

To place a call by speaking

1 From the Home screen, tap the **Apps Key** > **Voice Command**.

2 Say "**Call**" followed by the name of the contact to call.

If Voice Command finds a match, it dials the contact's default number.

LG Tag+

LG Tag+ lets you customize NFC tags with the settings you prefer.

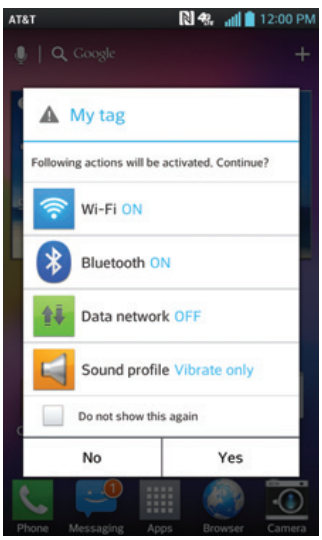
1 From the Home screen, tap **Apps Key** > **LG Tag+** .

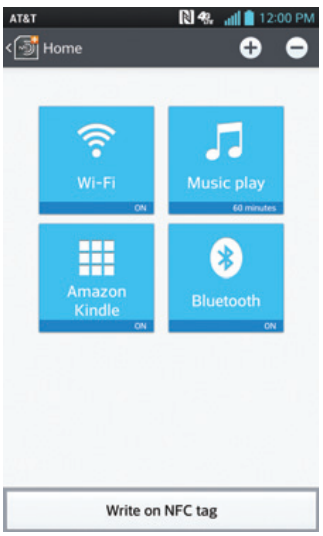
2 Tap .

3 Enter a name for the tag and tap **OK**.

4 Tap an action to add it to the tag. Then tap to add more actions. When you're finished, tap **Write on NFC tag**.

5 Hold your phone to a blank tag and the tag will be written.





The Web

Browser

The Browser gives you a fast, full-color world of games, music, news, sports, entertainment, and much more, right on your mobile phone.

NOTE

Additional charges apply when connecting to these services and downloading content. Check data charges with your network provider.

< Browser Bar >

The Browser Bar at the bottom of the screen enhances your mobile browsing experience with contextual recommendations, social applications and browser utilities. We've included some buttons to get you started and have made it easy to add more buttons, move or remove them.

To display the Browser Bar, touch and drag up at the bottom of the screen.

Using options

Tap the **Menu Key** to view the following options:

Refresh - Alows you to reload the current web page.

Forward - Used in conjunction with the **Back Key**. This allows you to go back and forth between web pages without opening multiple windows.

New tab - Opens a new tab.

Bookmarks - Allows you to view, add, edit, and delete your bookmarks.

Save to bookmarks - Allows you to bookmark the current web page.

Go to Homepage - Allows you to open the home page.

History - Allows you to view the web pages you've visited.

Share page - Allows you send the web address (URL) of the web page to others.

Find on page - Allows you to search for text on the web page.

Request desktop site - Allows you to change the current mobile page to a desktop page.

Save for offline reading - Allows you to save the current page for offline reading.

Settings - Opens the Browser settings.

Exit - Allows you to exit the browser.

TIP

To return to the previous web page, tap the **Back Key**.

Adding bookmarks

1 When viewing the page you want to save, tap the **Menu Key** > **Save to bookmarks**.

2 Enter the desired information for **Label**, **Address**, **Account**, and **Add to** (location to save bookmark) and tap **OK**.

Changing the Browser settings

3 Open the Browser and tap the **Menu Key** > **Settings**.

Settings

The **Settings** application contains most of the tools for customizing and configuring your phone. All of the settings in the Settings application are described in this section.

To open the Settings application

- From the Home screen, tap the **Apps Key** > **Settings**.
- From the Home screen, tap the **Menu Key** > **All settings**.

Networks tab

This menu allows you to manage Wi-Fi and Bluetooth connections, portable hotspot and data tethering, airplane mode and VPN connections.

Airplane mode

Airplane mode allows you to quickly turn off all wireless connections.

1. From the Home screen, tap the **Menu Key** > **All settings**.
2. Select the **Networks** tab.
3. Slide **Airplane mode** to the right to turn it on.
4. Slide to the left to turn it off.

OR

1. Press and hold the **Power/Lock Key** and tap **Turn on Airplane mode**.
2. Press and hold the **Power/Lock Key** and tap **Turn off Airplane mode** to turn it off.

Wi-Fi

To use Wi-Fi on your phone, you need access to a wireless access point, or "hotspot." Some access points are open and you can simply connect to them. Others are hidden or implement other security features, so you must configure your phone in order to connect to them.

Turn on Wi-Fi

From the Home Screen , open the Notifications panel and tap to turn Wi-Fi on. A blue colored icon indicates that Wi-Fi is on.

OR

From the Home screen, tap the **Menu Key** and tap **All settings** > **Networks** tab > **Wi-Fi**. Then drag to the right.

To connect to a Wi-Fi Network

Turn off Wi-Fi when you're not using it to extend the life of your battery.

1 From the Home screen, tap the **Menu Key** and tap **All settings** > **Networks** tab > **Wi-Fi**.

2 Drag OFF to the right to turn it on and begin scanning for available Wi-Fi networks.

- A list of available Wi-Fi networks will be displayed. Secured networks are indicated by a lock icon.

3 Tap a network to connect to it.

- If the network is open, you are prompted to confirm that you want to connect to that network by tapping **Connect**.
- If the network is secured, you are prompted to enter a password or other credentials. (Ask your network administrator for details).

4 The Status Bar at the top of your screen will display an icon that indicates your Wi-Fi status.

TIP

If you are not in range of a Wi-Fi network and use a network connection. Additional data charges may apply.

NOTE

Access to the Internet and a wireless router required. As an added convenience, AT&T has shipped certain smartphones with Wi-Fi enabled as a default setting. Leaving Wi-Fi enabled when not connected to a Wi-Fi network may affect battery charge. Qualifying data plan required.

NOTE

This device supports WEP, WPA/WPA2-PSK and 802.1x EAP. (Some EAP methods are not supported.) If your Wi-Fi service provider or network administrator sets encryption for network security, enter the key in the pop-up window. If encryption is not set, this pop-up window will not be shown. You can obtain the key from your Wi-Fi service provider or network administrator.

Mobile data

You can select whether to enable or disable mobile data. You can check the current data usage, set to enable/disable mobile data, or set the mobile data limit.

Mobile data - Slide the button to the right to enable mobile data.

Limit mobile data usage - Checkmark to set mobile data limit.

Bluetooth

Using Bluetooth

1 From the Home screen, tap the **Menu Key** and tap **All settings** > **Bluetooth**, then drag OFF to the right to turn on the Bluetooth functionality.

2 Tap **Search for devices** at the bottom of the screen.

3 Tap the name of the device you wish to pair with, and then tap **Pair** to pair and connect.

TIP

Please consult documentation included with Bluetooth device for information on pairing mode and passcode (typically 0 0 0 0 – four zeroes).

How to send data from your phone via Bluetooth

You can send data via Bluetooth by running a corresponding application, not from Bluetooth menu.

* **Sending pictures**: Open the **Gallery** application and tap a picture. Then tap > **Bluetooth**. Check if Bluetooth is turned on and tap **Search for devices**. Then tap the device you want to send data to from the list.

* **Sending contacts**: Open the **Contacts** application. Tap the contact you want to share, then tap the **Menu Key** > **Share** > **Bluetooth**. Check if Bluetooth is turned on and tap **Search for devices**.Then tap the device you want to send data to from the list.

* **Sending multiple contacts**: Open the **Contacts** application. To select more than one contact, tap the **Menu Key** > **Share** . Tap the contacts you want to send or tap **Select all** at the top left corner of the screen. Tap **Attach** > **Bluetooth**. Check if Bluetooth is turned on and tap **Search for devices.** Then tap the device you want to send data to from the list.

* **Connecting to FTP (Only the FTP server is supported on this handset)**: From the Home screen, tap the **Menu Key** > **All settings** > **Networks** tab > **Bluetooth**. Make sure Bluetooth is turned on. Tap **Make phone visible** to make the device visible to other Bluetooth devices. Then search for other devices. Find the service you want and connect to the FTP server.

TIP

The supported Bluetooth version is Bluetooth 3.0 and certified by Bluetooth SIG. It is compatible with other Bluetooth SIG certified devices.

- If you want to search for this phone from other devices,from the Home screen, tap the **Menu Key** > **All settings** > **Networks** tab > **Bluetooth**. Make sure Bluetooth is turned on. Tap **Make phone visible** to make the device visible to other Bluetooth devices. Being visible for 2 minutes is set by default.
- To change the visibility time length, tap the **Menu Key** > **Visibility timeout**. Choose from **2 minutes**, **5 minutes**, **1 hour**, or **Never time out**.
- Supported profiles are HFP/HSP, A2DP, AVRCP, OPP, FTP(Server) and PBAP.

File networking

File Networking requires wireless connection. Make sure that devices are using same AP(Access Point). Network folder sharing may use more battery.

To share my folder:

1 From the Home screen, tap the **Menu Key** > **All settings**.

2 Select the **Networks** tab.

3 Tap **Connectivity** > **File networking**.

4 Tap **Share my folder** to share your phone's folder with other devices.

5 Tap **Shared folder** to configure the folder to share.

6 Tap **Set password** to configure password for security.

7 Access phone's folder with typing "\ \Device name" or "\ \IP address" at URL address field on PC window.

To access other device's folder:

1 From the Home screen, tap the **Menu Key** > **All settings**.

2 Select the **Networks** tab.

3 Tap **Connectivity** > **File networking** > **Access other device folder**.

4 Tap a device to connect with in the **AVAILABLE DEVICES**. If the device is secured with password, you should enter User name and password. You can access folder without User name or password if computer's shared folder is set as 'Everyone'.

5 Select the folders to access. This may take a few seconds depending on the size of shared folders.

6 After connecting devices, you can read or write shared file from other devices in phone's applications (such as Gallery, Music, File manager). Check the following mount path:/sdcard/Network_folder_"Device Name".

Portable Wi-Fi hotspot

You can also use your smartphone to provide a mobile broadband connection for up to 8 other devices. Create a hotspot and share your connection.

To create a portable hotspot, from the Home screen, tap the **Menu Key** > **All settings** > **Networks** tab > **Connectivity** > **Portable Wi-Fi hotspot**. Then tap **Portable Wi-Fi hotspot** once more to activate the feature. A blue checkmark indicates that the feature is active. Tap **Configure Wi-Fi hotspot** to change the SSID, password, security type, and other hotspot options.

NOTE

Mobile Hotspots requires an appropriate DataPro data plan. Devices connected to your Mobile Hotspot use data from your DataPro plan. Plans are not unlimited and significant charges may be incurred if the included data allowance is exceeded. Performance may vary depending on the number of devices connected and other factors. If you do not use a password, others will be able to use your Mobile Hotspot connection.

Wi-Fi Direct

Wi-Fi Direct supports a direct connection between Wi-Fi enabled devices without an access point. Due to the high battery usage of Wi-Fi direct, it is recommended that you plug your phone into a power outlet while using the Wi-Fi Direct feature.

To turn on Wi-Fi Direct:

1 From the Home screen, tap the **Menu Key** > **All settings**.

2 Select the **Networks** tab.

3 Tap **Connectivity** > **Wi-Fi Direct** > **Wi-Fi Direct** > **OK**.

Miracast

You can mirror phone screen and sound onto LG Miracast dongle or TV wirelessly.

1 From the Home screen, tap the **Menu Key** > **All settings**.

2 Select the **Networks** tab.

3 Tap **Connectivity** > **Miracast**.

4 Slide the **Miracast** switch to the right to turn on the feature.

5 Turn on the Miracast feature on your TV or connect to the LG Miracast dongle.

Tips

To start Miracast feature quickly, tap the Miracast icon in the Notification Panel. While mirroring, Wi-Fi or Mobile Hotspot cannot be used simultaneously.

Bluetooth tethering

Via Bluetooth tethering, you can use your smart phone to provide a mobile broadband connection.

To share your connection via Bluetooth tethering:

From the Home screen, tap the **Menu Key** > **All settings** > **Networks** tab > **Connectivity** > **Bluetooth Tethering**.

NOTE

Bluetooth tethering can be activated only when your smartphone is connected to AT&T network.

NFC

NFC (Near Field Communication) is a wireless technology that enables data transmission between two objects when they are brought within a few inches of each others. When you enable NFC on your phone, your phone can exchange data with other NFC-enabled devices or read information from smart tags embedded in posters, stickers, and other products.

To turn on NFC:

1 From the Home screen, tap the **Menu Key** > **All settings**.

2 Select the **Networks** tab.

3 Tap **Connectivity** and slide **NFC** button to the right.

Android Beam

When this feature is turned on, you can beam app content to another NFC-capable device by holding the devices close together. For example, you can beam Browser pages, YouTube videos, People contacts, and more.

Just bring the devices together (typically back

to back) and then touch your screen. The app determines what gets beamed.

To access Android Beam:

From the Home screen, tap the **Menu Key** > **All settings** > **Connectivity** > **NFC** > **Android Beam**.

VPN

From your phone, you can add, set up, and manage virtual private networks (VPNs) that allow you to connect and access resources inside a secured local network, such as your corporate network.

Prepare Your Device for VPN Connection

Depending on the type of VPN you are using at work, you may be required to enter your login credentials or install security certificates before you can connect to your company's local network. You can get this information from your network administrator. Before you can initiate a VPN connection, you must set the screen lock option (Pattern, PIN, or Password only).

Add a VPN Connection

1 From the Home screen, tap the **Menu Key** > **All settings**.

2 Select the **Networks** tab.

3 Tap **Connectivity** > **VPN** > **Add VPN network**.

4 Enter the VPN network according to the security details you have obtained from your network administrator.

5 When finished, tap **Save**.

Mobile networks

You can set whether to enable or disable data access on your phone.

Data enabled

Select whether to enable or disable data access.

International data roaming

Select whether to enable or disable data access while international roaming.

Access Point Names

You can select the access point name, add a new APN, or reset to default.

Network operators

You can search for all available networks or automatically select preffered network.

Call

You can set **Fixed dialing numbers**, **Voicemail** and **Other call settings**

including **Call reject**, **Quick messages**, **TTY mode**, **Hearing aids**, **Call duration**, **Caller ID**, and **Sound settings**.

Sound tab

Adjust sound, notification default settings and vibrate mode. You can also manage audible and Haptic feedback.

Sound profile

Allows you to set the sound profile to Sound, Vibrate only, or Silent.

Volumes

Adjust the phone's volume settings to suit your needs and your environment.

Quiet time

Slide the Quiet Time switch

to the right to activate the feature and set times to turn off all sounds except alarm and media.

Ringtone with vibration

Checkmark for vibration feedback for calls and notifications.

Phone ringtone

Select the ringtone for incoming calls.

Notification sound

Select the ringtone for notifications such as new messages receipt or calendar events.

Wise ringtone

Select to automatically increase the volume of the ringtone when outside noise is loud.

Touch feedback & system

Allows you to set dial pad touch tones, touch sounds, screen lock sound, and vibrate on touch.

Display tab

Home screen

Animation - Set whether you want to enjoy animated transitions for all supported effects (including when navigating from screen to screen) or to use the phone without any optional animation effects (this setting does not control animation in all applications).

Screen swipe effect - Allows you to select the type of effect to display when you swipe from one Home screen canvas to the next.

Wallpaper - Allows you to set the wallpaper.

Portrait view only - Select to display the Home screen always in portrait view.

Scroll screens circularly - Checkmark to show the first screen after last screen when scrolling.

Home backup & restore - Select to backup and restore app/widget configurations and the theme.

Lock screen

Select screen lock - Select the desired option to secure your phone from the below.

None - No lock screen.

Swipe - Swipe any part of the screen to unlock screen.

Face Unlock - Unlocks the screen through facial recognition. Follow the prompts. You are asked to select Pattern and/or PIN as a backup.

Pattern - Opens a set of screens that guide you through drawing a screen unlock pattern. It's recommended that you enter backup PIN as well in case that you might lost the pattern. Then, you can set the wallpaper on the lock screen, whether to show the owner information, the lock timer, vibrate on touch, or whether to make the pattern visible.

PIN - Enter a numeric PIN to unlock screen.

Password - Enter a password to unlock screen.

Wallpaper - Select the wallpaper to display for your lock screen.

Clocks & shortcuts - Customize clocks and shortcuts on the lock screen.

Owner info - Display the owner info on the lock screen.

Lock timer - Allows you to set the amount of time before the screen automatically locks after the screen has timed-out.

Power button instantly locks - Checkmark to instantly lock the screen when the **Power/ Lock Key** is pressed.

Vibrate on touch - Select to make the device vibrate when you unlock it.

Brightness

Adjust the brightness of the screen.

Screen timeout

Set the time delay before the screen automatically turns off.

Wise screen

Checkmark this to keep screen on when the phone detects your face looking at the screen.

Auto-rotate screen

Set to switch orientation automatically when you rotate the phone.

Aspect ratio correction

Change the resolution size of downloaded applications to fit the screen size.

Font type

Select the desired font type.

Font size

Select the desired font size.

Front key light

Tap to set the Front key light options.

Turn on front key light: Checkmark this to set the the front keys (Menu Key, Home Key, Back Key) are turned on, when you use the device.

Front key light duration: Select how long the front keys remain backlit while the screen is turned on.

Notification flash

Checkmark each item to set to turn on.

Motion sensor calibration

Improve the accuracy of the tilt and speed of the sensor.

General tab

Power saver

Turn Power saver on - Select the level you want to turn on the Power saver.

Power saver Tips - Touch to access some tips for Power saver.

POWER SAVING ITEMS

Checkmark each feature to turn off or adjust when battery is low.

Auto-sync - Turns off Auto-sync.

Wi-Fi - Turns off Wi-Fi if data is not in use.

Bluetooth - Turns off Bluetooth if not connected.

Eco mode - Enables Eco mode. Eco mode extends battery life by dynamically optimizing CPU control policy.

Vibrate on touch - Turns off touch feedback.

Brightness - Adjust the brightness.

Screen timeout - Adjust screen timeout of screen.

Front key light - Adjust Front key light timeout.

BATTERY INFORMATION

Battery percentage - Display battery percentage on the Status Bar.

Battery use - View which components and application use the most battery.

Applications

You use the Applications settings menu to view details about the applications installed on your phone, manage their data, force them to stop, and to set whether you want to permit installation of applications that you obtain from websites and email. Tap the **Downloaded**, **Running** or **All** tabs to view information about your installed apps.

Quad core control

You can access the menu to turn on Eco mode through the Quad core control. Eco mode extends battery life by dynamically optimizing CPU control policy. When Eco mode is turned off, Automatic mode is used to control the Quad cores to provide optimized system performance.

Storage

INTERNAL STORAGE

You can monitor the used and available space on the system memory.

SD CARD

You can monitor the used and available space on your microSD card.

Total space - Lists the total amount of space on any microSD card installed in your phone. It is divided by the type of files stored.

Unmount SD card - Tap this to unmount the microSD card from your phone so that you can format the card or safely remove.

Erase SD card - Permanently erases everything on the microSD card and prepares it for use with your phone. You must unmount the microSD card before you can format it.

Gestures

Move home screen items - Press and hold an item and tilt the device to move to other home screens.

Tilt sensitivity - Test and adjust sensitivity of tilt sensor for the Home screen and applications.

Silence incoming calls - Flip the device to silence incoming calls.

Snooze or stop alarm - Flip the device to snooze or stop the alarm.

Pause video - Flip the device to pause the video.

Help - Touch to get information on using the Gesture function of your device.

Accounts & sync

Use the Accounts & sync settings menu to add, remove, and manage your Google™ and other supported accounts. You also use these settings to control how and whether all applications send, receive, and sync data on their own schedules and whether all applications can synchronize user data automatically. Gmail™, Calendar, and other applications may also have their own settings to control how they synchronize data; see the sections on those applications for details. Slide

right to enable adding account or sync. Touch **ADD ACCOUNT** to add new account.

Location services

Use the Location services menu to set your preferences for using and sharing your location when you search for information and use location-based applications, such as Maps.

Google's location services - Checkmark to use information from Wi-Fi and mobile networks to determine your approximate location, used while searching in Google Maps and other applications. When you checkmark this option, you're asked whether you consent to sharing your location anonymously with Google's location service.

GPS satellites - Checkmark to enable your phone's standalone global positioning system (GPS) satellite receiver to pinpoint your location to within an accuracy as close as several meters ("street level"). Actual GPS accuracy depends on a clear view of the sky and other factors.

Location & Google search - Let Google use your location to improve search results and other services.

Security

Use the Security settings to configure how to help secure your phone and its data.

ENCRYPTION

Encrypt phone - Opens a screen that encrypts data on the phone for security. You will be required to enter a PIN or password to decrypt your phone each time you power it on.

SIM CARD LOCK

Set up SIM card lock - Opens a screen to set if you want to require a PIN to use or, if set, allows you to change the PIN.

PASSWORDS

Password typing visible - Checkmark to briefly show each character of passwords as you enter them so that you can see what you enter.

PHONE ADMINISTRATION

Phone administrators - Add or remove phone administrators.

Unknown sources - Allow installation of non-Play Store applications.

CREDENTIAL STORAGE

Trusted credentials - Checkmark to allow applications to access your phone's encrypted store of secure certificates and related passwords and other credentials. You use credential storage to establish some kinds of VPN and Wi-Fi connections. If you have not set a password for the secure credential storage, this setting is dimmed.

Install from storage - Touch to install a secure certificate from a microSD card.

Clear credentials - Deletes all secure certificates and related credentials and erases the secure storage's own password, after prompting you to confirm that you want to do this.

Backup & reset

BACKUP & RESTORE

Back up my data - Back up app data, Wi-Fi passwords, and other settings to Google servers.

Back up account - Displays the accounts that are currently being backed up.

Automatic restore - When reinstalling an app, restore backed up settings and data.

PERSONAL DATA

Factory data reset - Erases all data on the phone.

Date & time

Set your preferences for how the date and time is displayed.

Language & input

Select the language for the text on your phone and for configuring the on-screen keyboard, including words that you've added to its dictionary.

Language - Choose a language to use on your phone.

Spelling correction - Allows spelling correction when using the on-screen keyboard.

Personal dictionary - Allows you to view, edit, and add words to your personal dictionary.

KEYBOARD & INPUT METHODS

Default - Shows the default keyboard type.

Checkmark the keyboard you want to use from **Android keyboard, Google voice typing**, **LG Keyboard**. Tap to configure each keyboard's settings.

SPEECH

Voice Search - Touch to configure the Voice Search settings.

Text-to speech output - Touch to set the preferred engine or general settings for text-to-speech output.

MOUSE/TRACKPAD

Pointer speed - Adjust the pointer speed.

Accessibility

Use the Accessibility settings to configure any accessibility plug-ins you have installed on your phone.

NOTE

Requires additional plug-ins to become selectable.

PC connection

USB connection type - Opens a dialog box to choose the default connection mode when connecting your phone to a PC via USB. Choose from Charge only, Media sync (MTP), USB tethering, PC software, or Camera (PTP).

USB Tethering

You can use your phone to provide a data connection to a computer by activating data tethering and connecting them with a USB cable.

To tether your phone with your computer using the USB

1. Connect your phone to your computer with a USB cable.
2. The USB connection type prompt is displayed. Tap **USB tethering** to confirm.

NOTE

- Data Tethering requires an appropriate DataPro data plan. Devices connected by tethering use data from your DataPro plan. Plans are not unlimited and significant charges may be incurred if

the included data allowance is exceeded. Performance may vary depending on the number of devices connected and other factors.

- You cannot access your phone's microSD card on your computer when using USB tethering.

Ask on connection - Checkmark to have the phone ask you to choose which USB connection mode it should connect with to a PC.

Help - Touch to get information on the different types of USB connections.

LG SOFTWARE

On-Screen Phone - Turns the On-Screen Phone function on so that you can receive Wi-Fi connection requests. Refer to page 82 for **LG On-Screen Phone**.

Help - Displays help information for the On-Screen Phone function.

Developer options

USB debugging - Checkmark to set Debug mode when USB is connected.

Development device ID - Displays the development device ID.

Stay awake - If activated, the screen will never sleep while charging.

Allow mock locations - Checkmark to allow mock locations.

Desktop backup password- Allows you to set a desktop backup password.

USER INTERFACE

Enable strict mode - Checkmark to flash the screen when apps operate for a long time on the main thread.

Show touch data - Checkmark to make touch data visible on the screen.

Show touches - Checkmark to show visual feedback when the screen is touched.

Show screen updates - Checkmark to flash areas of the screen when they update.

Show CPU usage - Checkmark to display a screen overlay showing current CPU usage.

Force GPU rendering - Checkmark to use 2D hardware acceleration in applications.

Window animation scale - Select to set the window animation scale.

Transition animation scale - Select to set transition animation scale.

APPS

Don't keep activities - Checkmark to quit every activity as soon as the user leaves it.

Background process limit - Set the preferered Background process limit.

Show all ANRs Checkmark to show App Not Responding dialog for background apps.

About phone

View legal information, check phone status and software versions, and perform the software update.

LG On-Screen Phone 3.0

LG SOFTWARE

On-Screen Phone allows you to view your mobile phone screen from a PC via a USB. You can also control your mobile phone from your PC, using the mouse or keyboard.

On-Screen Phone 3.0 icons

Launches LG Home Panorama or changes the On-Screen Phone preferences.

Connects your mobile phone to your PC, or disconnects it.

Minimizes the On-Screen Phone window.

Maximizes the On-Screen Phone window.

Exits the On-Screen Phone program.

On-Screen Phone 3.0 features

- **Real-time transfer and control**: Displays and controls your mobile phone screen when connected to your PC.
- **Mouse control**: Allows you to control your mobile phone by using the mouse to click and drag on your PC screen.
- **Text input with keyboard**: Allows you to compose a text message or note using your computer keyboard.
- **File transfer (mobile phone to PC)**: Sends a file from your mobile phone (e.g. Gallery, Video Player, Music and Polaris Office) to your PC. Simply right-click on the file and drag it to send it to your PC.
- **File transfer (PC to mobile phone)**: Sends files from your PC to your mobile phone. Just select the files you wish to transfer and drag and drop them into the On-Screen Phone window. The sent files are stored in the OSP folder.
- **LG Home Panorama**: Shows all of the work spaces of LG Home. You can easily organize icons or widgets and run an application by double-clicking the shortcut.

NOTE

Please make sure that LG Home is the default launcher. Some widgets may not work properly on the LG Home Panorama.

- **Real-time event notifications**: Prompts a pop-up to inform you of any incoming calls or text messages, as well as alarm and event notifications.

How to install On-Screen Phone on your PC

Visit **LG.com** (http://www.lg.com/us). Locate the search box in the upper right corner and enter the model number. From the **SUPPORT** list, select your model. Scroll down and select the **OSP** tab and click on **DOWNLOAD**. When prompted, select **Run** to install On-Screen Phone on your PC.

How to connect your mobile phone to your PC

On-Screen Phone 3.0 provides USB and Wi-Fi connection. Please follow the instructions on the Connection Wizard of the On-Screen Phone program.

NOTE

To use On-Screen Phone using Wi-Fi connection, from the Home screen tap the **Menu Key** > **All settings** > **General** tab > **PC connection** > **On-Screen Phone check box** is selected.

Please make sure that the battery may run out more quickly due to the current consumption if On-Screen Phone is connected via Wi-Fi.

When you connect your mobile phone to your PC via Mobile Hotspot and access to the Internet on the PC, additional data charges may be incurred depending on your DataPro data plan.

Access to the Internet using Wi-Fi networks may not work well depending on the network's traffic. When you enlarge the On-Screen Phone window, the display on the screen might become slow.

To check the phone-to-PC connection

Once the devices have been connected, drag down the Status Bar at the top of the Home screen to check the On-Screen Phone connection status.

To disconnect your phone from your PC

Click in the top left of the On-Screen Phone window. Alternatively, drag down the Status Bar at the top of the Home screen and select **On-Screen Phone connected** > **OK**.

Software Update

Phone Software Update

This feature allows you to update the firmware of your phone to the latest version conveniently from the internet without the need to visit a service center.

For more information on how to use this function, please visit:

http://update.lgmobile.com or

http://www.lg.com/common/ index.jsp.

As the mobile phone firmware update requires the user's full attention for the duration of the update process, please make sure to check all instructions and notes that appear at each step before proceeding. Please note that removing the USB cable or battery during the upgrade may seriously damage your mobile phone.

LG Mobile Phone Software update via Over-the-Air (OTA)

This feature allows you to update the firmware of your phone to the newer version conveniently via OTA without connecting the USB data cable. This feature is only available if and when LG makes the newer version of the firmware available for your device.

First, you can check the software version on your mobile phone:

From the Home screen, tap the **Menu Key** > **All settings** > **General** tab > **About phone** > **Software information**.

To perform the phone software update, from the Home screen, tap the **Menu Key** > **All settings** > **General** tab > **About phone** > **Software update** > **Update now**.

NOTE

Your personal data—including information about your Google account and any other accounts, your system/application data and settings, any downloaded applications and your DRM licence —might be lost in the process of updating your phone's software. Therefore, LG recommends that you back up your personal data before updating your phone's software. LG does not take responsibility for any loss of personal data.

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Q&A

Please check to see if any problems you have encountered with the phone are described in this section before taking the phone in for a service or calling the Customer Service Center.

Q How do I view the list of outgoing calls, incoming calls and missed calls?

A Tap the **Phone Key** and tap the **Call logs** tab.

Q Why is the connection inconsistent or not audible in certain areas?

A When the frequency environment is unstable in a certain area, connection may be inconsistent and inaudible. Relocate to another area and try again.

Q Why is the connection inconsistent or abruptly disconnects even when established?

A When frequency is unstable or weak, or if there are too many users, a connection may be cut off even after it was established. Please try again later or attempt again after relocating to other areas.

Q Why does the phone heat up?

A The phone may get hot when there is a very long call duration, when games are played or even when surfing the Internet for a long time. This has no effect upon the life of the product or performance.

Q Why does the battery run out so quickly during normal use?

A This may be due to the user environment, a large number of calls or a weak signal.

Q Why is no number dialed when an Address Book entry is recalled?

A Check that the number has been stored correctly by using the Address book Search feature. Re-store them, if necessary.

Q The screen got frozen. How can I solve this problem?

A Press and hold the **Power/Lock Key** for 10 seconds to turn it off. Then press and hold the **Power/Lock Key** again for 3 seconds to reboot the phone.

Accessories

There are a variety of accessories available for your mobile phone, some of which may be sold separately. You can select these options according to your personal communication requirements. Visit your local AT&T store or www.att.com/wirelessaccessories for specific offerings.

NOTE

- Always use genuine LG accessories. Failure to do this may invalidate your warranty.
- Accessories may be different in different regions; please check with our regional service company or agent for further enquiries.

For Your Safety

Important Information

This user guide contains important information on the use and operation of this phone. Please read all the information carefully for optimal performance and to prevent any damage to or misuse of the phone. Any changes or modifications not expressly approved in this user guide could void your warranty for this equipment. Any changes or modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment.

Before You Start

WARNING! This product contains chemicals known to the State of California to cause cancer and birth defects or reproductive harm. ***Wash hands after handling***.

Safety Instructions

WARNING! To reduce the possibility of electric shock, do not expose your phone to high humidity areas, such as the bathroom, swimming pool, etc.

Always store your phone away from heat. Never store your phone in settings that may expose it to temperatures less than 32°F or greater than 104°F, such as outside during extreme weather conditions or in your car on a hot day. Exposure to excessive cold or heat will result in malfunction, damage and/or catastrophic failure.

Be careful when using your phone near other electronic devices. RF emissions from your mobile phone may affect nearby in adequately shielded electronic equipment. You should consult with manufacturers of any personal medical devices such as pacemakers and hearing aides to determine if they are susceptible to interference from your mobile phone. Turn off your phone in a medical facility or at a gas station. Never place your phone in a microwave oven as this will cause the battery to explode.

IMPORTANT! Please read the TIA SAFETY INFORMATION before using your phone.

Safety Information

Read these simple guidelines. Breaking the rules may be dangerous or illegal. Further detailed information is given in this user guide.

- Do not disassemble this unit. Take it to a qualified service technician when repair work is required.

- Keep away from electrical appliances such as TVs, radios, and personal computers.
- The unit should be kept away from heat sources such as radiators or cookers.
- Do not drop.
- Do not subject this unit to mechanical vibration or shock.
- The coating of the phone may be damaged if covered with wrap or vinyl wrapper.
- Use dry cloth to clean the exterior of the unit. (Do not use solvent such as benzene, thinner or alcohol.)
- Do not subject this unit to excessive smoke or dust.
- Do not keep the phone next to credit cards or transport tickets; it can affect the information on the magnetic strips.
- Do not tap the screen with a sharp object; otherwise, it may damage the phone.
- Do not expose the phone to liquid or moisture.
- Use the accessories like an earphone cautiously. Do not tap the antenna unnecessarily.

microSD card information and care

- The microSD card cannot be used for recording copyright- protected data.
- Keep the microSD card out of the small children's reach.
- Do not leave the microSD card in extremely hot location.
- Do not disassemble or modify the microSD card.

FCC RF Exposure Information

WARNING! Read this information before operating the phone.

In August 1996, the Federal Communications Commission (FCC) of the United States, with its action in Report and Order FCC 96-326, adopted an updated safety standard for human exposure to radio frequency (RF) electromagnetic energy emitted by FCC regulated transmitters. Those guidelines are consistent with the safety standard previously set by both U.S. and international standards bodies.

The design of this phone complies with the FCC guidelines and these international standards.

CAUTION

Use only the supplied antenna. Use of unauthorized antennas or modifications could impair call quality, damage the phone, void your warranty and/or result in violation of FCC regulations. Do not use the phone with a damaged antenna. A damaged antenna could cause a minor skin burn. Contact your local dealer for a replacement antenna.

Body-worn Operation

This device was tested for typical body-worn operations with the back of the phone kept 0.39 inches (1cm) between the user's body and the back of the phone. To comply with FCC RF exposure requirements, a minimum separation distance of 0.39 inches (1cm) must be maintained between the user's body and the back of the phone. Third-party belt-clips, holsters, and similar accessories containing metallic components may not be used. Body-worn accessories that cannot maintain 0.39 inches (1cm) separation distance between the user's body and the back of the phone, and have not been tested for typical body-worn operations may not comply with FCC RF exposure limits and should be avoided.

Part 15.19 statement

This device complies with part15 of FCC rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference.

(2) This device must accept any interference received, including interference that may cause undesired operation.

Part 15.105 statement

This equipment has been tested and found to comply with the limits for a class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If you experience interference with reception (e.g.,television), determine if this equipment is causing the harmful interference by turning the equipment off and then back on to see if the interference is affected. If necessary, try correcting the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Cautions for Battery

- Do not disassemble or open crush, bend or deform, puncture or shred.
- Do not modify or remanufacture, attempt to insert foreign objects into the battery, immerse or expose to water or other liquids, expose to fire, explosion or other hazard.
- Only use the battery for the system for which it is specified.
- Only use the battery with a charging system that has been qualified with the system per this standard. Use of an unqualified battery or charger may present a risk of fire, explosion, leakage, or other hazard.
- Battery usage by children should be supervised.
- Avoid dropping the phone. If the phone is dropped, especially on a hard surface, and the user suspects damage, take it to a service center for inspection.
- Improper battery use may result in a fire, explosion or other hazard.
- For those host devices that utilize a USB port as a charging source, the host device's user manual shall include a statement that the phone shall only be connected to products that bear the USB-IF logo or have completed the USB-IF compliance program.

Adapter (Charger) Cautions

- Using the wrong battery charger could damage your phone and void your warranty.
- The adapter or battery charger is intended for indoor use only.

Do not expose the adapter or battery charger to direct sunlight or use it in places with high humidity, such as the bathroom.

Avoid damage to your hearing

- Damage to your hearing can occur if you are exposed to loud sound for long periods of time. We therefore recommend that you do not turn on or off the handset close to your ear. We also recommend that music and call volumes are set to a reasonable level.
- If you are listening to music while out and about, please ensure that the volume is at a reasonable level so that you are aware of your surroundings. This is particularly imperative when attempting to cross the street.

Wi-Fi Caution

This device is capable of operating in 802.11a/n mode. For 802.11a/n devices operating in the frequency range of 5.15 – 5.25 GHz, they are restricted for indoor operations to reduce any potential harmful interference for Mobile Satellite Services (MSS) in the US. WIFI Access Points that are capable of allowing your device to operate in 802.11a/n mode(5.15 – 5.25 GHz band) are optimized for indoor use only.

If your WIFI network is capable of operating in this mode, please restrict your WIFI use indoors to not violate federal regulations to protect Mobile Satellite Services.

Safety Guidelines

TIA Safety Information

Provided herein is the complete TIA Safety Information for Wireless Handheld phones. Inclusion of the text covering Pacemakers, Hearing Aids, and Other Medical Devices is required in the owner's manual for CTIA Certification. Use of the remaining TIA language is encouraged when appropriate.

Exposure to Radio Frequency Signal

Your wireless handheld portable telephone is a lowpower radio transmitter and receiver. When it is ON, it receives and also sends out radio frequency (RF) signals.

In August, 1996, the Federal Communications Commissions (FCC) adopted RF exposure guidelines with safety levels for handheld wireless phones. Those guidelines are consistent with the safety standards previously set by both U.S. and international standards bodies:

ANSI C95.1 (1992) *

NCRP Report 86 (1986)

ICNIRP (1996)

Those standards were based on comprehensive and periodic evaluations of the relevant scientific literature. For example, over 120 scientists, engineers, and physicians from universities, government health agencies, and industry reviewed the available body of research to develop the ANSI Standard (C95.1).

* American National Standards Institute; National Council on Radiation Protection and Measurements; International Commission on Non-Ionizing Radiation Protection

The design of your phone complies with the FCC guidelines (and those standards).

Antenna Care

Use only the supplied or an approved replacement antenna. Unauthorized antennas, modifications, or attachments could damage the phone and may violate FCC regulations.

Tips on Efficient Operation

For your phone to operate most efficiently: Don't touch the antenna unnecessarily when the phone is in use. Contact with the antenna affects call quality and may cause the phone to operate at a higher power level than otherwise needed.

Driving

Check the laws and regulations on the use of wireless phones in the areas where you drive and always obey them. Also, if using your phone while driving, please observe the following:

- Give full attention to driving - driving safely is your first responsibility;
- Use hands-free operation, if available;
- Pull off the road and park before making or answering a call if driving conditions or the law require it.

Electronic Devices

Most modern electronic equipment is shielded from RF signals. However, certain electronic equipment may not be shielded against the RF signals from your wireless phone.

Pacemakers

The Health Industry Manufacturers Association recommends that a minimum separation of six (6') inches be maintained between a handheld wireless phone and a pacemaker to avoid potential interference with the pacemaker. These recommendations are consistent with the independent research by and recommendations of Wireless Technology Research.

Persons with pacemakers:

- Should ALWAYS keep the phone more than six (6) inches from their pacemaker when the phone is turned ON;
- Should not carry the phone in a breast pocket;
- Should use the ear opposite the pacemaker to minimize the potential for interference;
- Should turn the phone OFF immediately if there is any reason to suspect that interference is taking place.

Hearing Aids

Some digital wireless phones may interfere with some hearing aids. In the event of such interference, you may want to consult AT&T.

HAC

This phone has been tested and rated for use with hearing aids for some of the wireless technologies that it uses. However, there may be some newer wireless technologies used in this phone that have not been tested yet for use with hearing aids. It is important to try the different features of this phone thoroughly and in different locations, using your hearing aid or cochlear implant, to determine if you hear any interfering noise. Consult your service provider or the manufacturer of this phone for information on hearing aid compatibility. If you have questions about return or exchange policies, consult your service provider or phone retailer.

Other Medical Devices

If you use any other personal medical device, consult the manufacturer of your device to determine if they are adequately shielded from external RF energy. Your physician may be able to assist you in obtaining this information.

Health Care Facilities

Turn your phone OFF in health care facilities when any regulations posted in these areas instruct you to do so. Hospitals or health care facilities may use equipment that could be sensitive to external RF energy.

Vehicles

RF signals may affect improperly installed or inadequately shielded electronic systems in motor vehicles. Check with the manufacturer or its representative regarding your vehicle.

You should also consult the manufacturer of any equipment that has been added to your vehicle.

Posted Facilities

Turn your phone OFF in any facility where posted notices so require.

Aircraft

FCC regulations prohibit using your phone while in the air. Turn your phone OFF before boarding an aircraft.

Blasting Areas

To avoid interfering with blasting operations, turn your phone OFF when in a 'blasting areas or in areas posted: 'Turn off two-way radio'. Obey all signs and instructions.

Potentially Explosive Atmosphere

Turn your phone OFF when in any area with a potentially explosive atmosphere and obey all signs and instructions. Sparks in such areas could cause an explosion or fire resulting in bodily injury or even death.

Areas with a potentially explosive atmosphere are often, but not always, marked clearly. Potential areas may include: fueling areas (such as gasoline stations); below deck on boats; fuel or chemical transfer or storage facilities; vehicles using liquefied petroleum gas (such as propane or butane); areas where the air contains chemicals or particles (such as grain, dust, or metal powders); and any other area where you would normally be advised to turn off your vehicle engine.

For Vehicles Equipped with an Air Bag

An air bag inflates with great force. DO NOT place objects, including either installed or portable wireless equipment, in the area over the air bag or in the air bag deployment area. If in-vehicle wireless equipment is improperly installed and the air bag inflates, serious injury could result.

Charger and Adapter Safety

- The charger and adapter are intended for indoor use only.

Battery Information and Care

- Always unplug the charger from the wall socket after the phone is fully charged to save unnecessary power consumption of the charger.
- Please read the manual of specified charger about charging method.
- Do not damage the power cord by bending, twisting, or heating. Do not use the plug if it is loose as it may cause electric shock or fire.
- Do not place any heavy items on the power cord. Do not allow the power cord to be

crimped as it may cause electric shock or fire.

- Unplug the power cord prior to cleaning your phone, and clean the power plug pin when it's dirty. When using the power plug, ensure that it's firmly connected. If not, it may cause excessive heat or fire. If you put your phone in a pocket or bag without covering the receptacle of the phone (power plug pin), metallic articles (such as a coin, paperclip or pen) may short-circuit the phone. Always cover the receptacle when not in use.
- Recharge the battery after long periods of non-use to maximize battery life. Battery life will vary due to usage pattern and environmental conditions.
- Never store your phone in temperature less than -4°F or greater than 122°F. Charge the battery in range of 0°C ~ 45°C.
- Charging temperature range is regulated between 0°C and 45°C. Do not charge the battery out of recommended temperature range. Charging out of recommended range might cause the generating heat or serious damage of battery. And also, it might cause the deterioration of battery's characteristics and cycle life.
- Do not use or leave the battery under the blazing sun or in heated car by sunshine. The battery may generate heat, smoke or flame. And also, it might cause the deterioration of battery's characteristics or cycle life.
- The battery pack has protection circuit to avoid the danger. Do not use nearby the place where generates static electricity more than 100V which gives damage to the protection circuit. If the protection circuit were broken, the battery would generate smoke, rupture or flame.
- If the skin or cloth is smeared with liquid from the battery, wash with fresh water. It may cause the skin inflammation.
- Please take your phone to an authorized service center immediately if this occurs.
- Do not handle the phone with wet hands while it is being charged. It may cause an electric shock or seriously damage your phone.
- Do not place or answer calls while charging the phone as it may short-circuit the phone and/or cause electric shock or fire.

- The charger and adapter are intended for indoor use only.
- Talking on your phone for a long period of time may reduce call quality due to heat generated during use.

Explosion, Shock, and Fire Hazards

- Do not put your phone in a place subject to excessive dust and keep the minimum required distance between the power cord and heat sources.
- Unplug the power cord prior to cleaning your phone, and clean the power plug pin when it is dirty.
- When using the power plug, ensure that it is firmly connected. If it is not, it may cause excessive heat or fire.
- If you put your phone in a pocket or bag without covering the receptacle of the phone (power plug pin), metallic articles (such as a coin, paperclip or pen) may short-circuit the phone. Always cover the receptacle when not in use.
- Do not short-circuit the battery. Metallic articles such as a coin, paperclip or pen in your pocket or bag may short-circuit the + and – terminals of the battery (metal strips on the battery) upon moving. Short-circuit of the terminal may damage the battery and cause an explosion.

General Notice

- Using a damaged battery or placing a battery in your mouth may cause serious injury.
- Do not place items containing magnetic components such as a credit card, phone card, bank book or subway ticket near your phone. The magnetism of the phone may damage the data stored in the magnetic strip.
- Talking on your phone for a long period of time may reduce call quality due to heat generated during use.
- When the phone is not used for a long period time, store it in a safe place with the power cord unplugged.
- Using the phone in proximity to receiving equipment (i.e., TV or radio) may cause interference to the phone.
- Do not use the phone if the antenna is damaged. If a damaged antenna contacts skin, it may cause a slight burn. Please

contact an LG Authorized Service Center to replace the damaged antenna.

- Do not immerse your phone in water. If this happens, turn it off immediately and remove the battery. If the phone does not work, take it to an LG Authorized Service Center.
- Do not paint your phone.
- The data saved in your phone might be deleted due to careless use, repair of the phone, or upgrade of the software. Please backup your important phone numbers. (Ring tones, text messages, voice messages, pictures, and videos could also be deleted.) The manufacturer is not liable for damage due to the loss of data.
- When you use the phone in public places, set the ring tone to vibration so as not to disturb others.
- Do not turn your phone on or off when putting it in your ear.
- Your phone is an electronic device that generates heat during normal operation. Extremely prolonged, direct skin contact in the absence of adequate ventilation may result in discomfort or minor burns. Therefore, use care when handling your phone during or immediately after operation.

Caution: Avoid potential hearing loss.

Prolonged exposure to loud sounds (including music) is the most common cause of preventable hearing loss. Some scientific research suggests that using portable audio devices, such as portable music players and cellular telephones, at high volume settings for long durations may lead to permanent noise induced hearing loss. This includes the use of headphones (including headsets, earbuds and Bluetooth® or other wireless devices).

Exposure to very loud sound has also been associated in some studies with tinnitus (a ringing in the ear), hypersensitivity to sound and distorted hearing. Individual susceptibility to noise-induced hearing loss and other potential hearing problems varies.

The amount of sound produced by a portable audio device varies depending on the nature of the sound, the device, the device settings and the headphones. You should follow some commonsense recommendations when using any portable audio device: **204 Safety**

- Set the volume in a quiet environment and

select the lowest volume at which you can hear adequately.

- When using headphones, turn the volume down if you cannot hear the people speaking near you or if the person sitting next to you can hear what you are listening to.
- Do not turn the volume up to block out noisy surroundings. If you choose to listen to your portable device in a noisy environment, use noisecancelling headphones to block out background environmental noise.
- Limit the amount of time you listen. As the volume increases, less time is required before your hearing could be affected.
- Avoid using headphones after exposure to extremely loud noises, such as rock concerts, that might cause temporary hearing loss. Temporary hearing loss might cause unsafe volumes to sound normal.
- Do not listen at any volume that causes you discomfort. If you experience ringing in your ears, hear muffled speech or experience any temporary hearing difficulty after listening to your portable audio device, discontinue use and consult your doctor.

You can obtain additional information on this subject from the following sources:

Safety 205

American Academy of Audiology 11730 Plaza American Drive, Suite 300

Reston, VA 20190

Voice: (800) 222-2336

Email: info@audiology.org

Internet: www.audiology.org

National Institute on Deafness and Other Communication

Disorders

National Institutes of Health

31 Center Drive, MSC 2320

Bethesda, MD USA 20892-2320

Voice: (301) 496-7243

Email: nidcdinfo@nih.gov

Internet: http://www.nidcd.nih.gov/health/hearing

National Institute for Occupational Safety and Health Hubert H. Humphrey Bldg.

200 Independence Ave., SW Washington, DC 20201 Voice: 1-800-35-NIOSH (1-800-356-4674)

Internet: http://www.cdc.gov/niosh/topics/noise/default.html

FDA Consumer Update

The U.S. Food and Drug Administration Center for Devices and Radiological Health Consumer Update on Mobile Phones.

1. Do wireless phones pose a health hazard?

The available scientific evidence does not show that any health problems are associated with using wireless phones. There is no proof, however, that wireless phones are absolutely safe. Wireless phones emit low levels of radiofrequency energy (RF) in the microwave range while being used. They also emit very low levels of RF when in the Home screen. Whereas high levels of RF can produce health effects (by heating tissue), exposure to low level RF that does not produce heating effects causes no known adverse health effects. Many studies of low level RF exposures have not found any biological effects. Some studies have suggested that some biological effects may occur, but such findings have not been confirmed by additional research. In some cases, other researchers have had difficulty in reproducing those studies, or in determining the reasons for inconsistent results.

2. What is the FDA's role concerning the safety of wireless phones?

Under the law, the FDA does not review the safety of radiation-emitting consumer products such as wireless phones before they can be sold, as it does with new drugs or medical devices. However, the agency has authority to take action if wireless phones are shown to emit radiofrequency energy (RF) at a level that is hazardous to the user. In such a case, the FDA could require the manufacturers of wireless phones to notify users of the health hazard and to repair, replace, or recall the phones so that the hazard no longer exists.

Although the existing scientific data do not justify FDA regulatory actions, the FDA has urged the wireless phone industry to take a number of steps, including the following:

- Support needed research into possible biological effects of RF of the type emitted by wireless phones;

- Design wireless phones in a way that minimizes any RF exposure to the user that is not necessary for device function; and
- Cooperate in providing users of wireless phones with the best possible information on possible effects of wireless phone use on human health.

The FDA belongs to an interagency working group of the federal agencies that have responsibility for different aspects of RF safety to ensure coordinated efforts at the federal level. The following agencies belong to this working group:

- National Institute for Occupational Safety and Health
- Environmental Protection Agency
- Occupational Safety and Health Administration
- National Telecommunications and Information Administration

The National Institutes of Health participates in some interagency working group activities, as well.

The FDA shares regulatory responsibilities for wireless phones with the Federal Communications Commission (FCC). All phones that are sold in the United States must comply with FCC safety guidelines that limit RF exposure. The FCC relies on the FDA and other health agencies for safety questions about wireless phones.

The FCC also regulates the base stations that the wireless phone networks rely upon. While these base stations operate at higher power than do the wireless phones themselves, the RF exposures that people get from these base stations are typically thousands of times lower than those they can get from wireless phones. Base stations are thus not the subject of the safety questions discussed in this document.

3. What kinds of phones are the subject of this update?

The term 'wireless phone' refers here to handheld wireless phones with built-in antennas, often called 'cell', 'mobile', or 'PCS' phones. These types of wireless phones can expose the user to measurable radiofrequency energy (RF) because of the short distance between the phone and the user's head. These RF exposures are limited by FCC safety guidelines that were developed with the advice of the FDA and other federal health and safety agencies.

When the phone is located at greater distances from the user, the exposure to RF is drastically lower because a person's RF exposure decreases rapidly with increasing distance from the source. The so-called 'cordless phones,' which have a base unit connected to the telephone wiring in a house, typically operate at far lower power levels, and thus produce RF exposures far below the FCC safety limits.

4. What are the results of the research done already?

The research done thus far has produced conflicting results, and many studies have suffered from flaws in their research methods. Animal experiments investigating the effects of radiofrequency energy (RF) exposures characteristic of wireless phones have yielded conflicting results that often cannot be repeated in other laboratories. A few animal studies, however, have suggested that low levels of RF could accelerate the development of cancer in laboratory animals. However, many of the studies that showed increased tumor development used animals that had been genetically engineered or treated with cancer causing chemicals so as to be predisposed to develop cancer in the absence of RF exposure. Other studies exposed the animals to RF for up to 22 hours per day. These conditions are not similar to the conditions under which people use wireless phones, so we don't know with certainty what the results of such studies mean for human health. Three large epidemiology studies have been published since December 2000. Between them, the studies investigated any possible association between the use of wireless phones and primary brain cancer, glioma, meningioma, or acoustic neuroma, tumors of the brain or salivary gland, leukemia, or other cancers. None of the studies demonstrated the existence of any harmful health effects from wireless phone RF exposures. However, none of the studies can answer questions about long-term exposures, since the average period of phone use in these studies was around three years.

5. What research is needed to decide whether RF exposure from wireless phones poses a health risk?

A combination of laboratory studies and

epidemiological studies of people actually using wireless phones would provide some of the data that are needed. Lifetime animal exposure studies could be completed in a few years. However, very large numbers of animals would be needed to provide reliable proof of a cancer promoting effect if one exists. Epidemiological studies can provide data that is directly applicable to human populations, but 10 or more years follow-up may be needed to provide answers about some health effects, such as cancer. This is because the interval between the time of exposure to a cancer-causing agent and the time tumors develop - if they do- may be many, many years. The interpretation of epidemiological studies is hampered by difficulties in measuring actual RF exposure during day-to-day use of wireless phones. Many factors affect this measurement, such as the angle at which the phone is held, or which model of phone is used.

6. What is the FDA doing to find out more about the possible health effects of wireless phone RF?

The FDA is working with the U.S. National Toxicology Program and with groups of investigators around the world to ensure that high priority animal studies are conducted to address important questions about the effects of exposure to radiofrequency energy (RF). The FDA has been a leading participant in the World Health Organization International Electromagnetic Fields (EMF) Project since its inception in 1996. An influential result of this work has been the development of a detailed agenda of research needs that has driven the establishment of new research programs around the world. The project has also helped develop a series of public information documents on EMF issues. The FDA and the Cellular Telecommunications & Internet Association (CTIA) have a formal Cooperative Research and Development Agreement (CRADA) to do research on wireless phone safety. The FDA provides the scientific oversight, obtaining input from experts in government, industry, and academic organizations. CTIA-funded research is conducted through contracts with independent investigators. The initial research will include both laboratory studies and studies of wireless phone users. The CRADA will also include a broad assessment

of additional research needs in the context of the latest research developments around the world.

7. How can I find out how much radio frequency energy exposure I can get by using my wireless phone?

All phones sold in the United States must comply with Federal Communications Commission (FCC) guidelines that limit radio frequency energy (RF) exposures. The FCC established these guidelines in consultation with the FDA and the other federal health and safety agencies. The FCC limit for RF exposure from wireless telephones is set at a Specific Absorption Rate (SAR) of 1.6 watts per kilogram (1.6 W/kg). The FCC limit is consistent with the safety standards developed by the Institute of Electrical and Electronic Engineering (IEEE) and the National Council on Radiation Protection and Measurement. The exposure limit takes into consideration the body's ability to remove heat from the tissues that absorb energy from the wireless phone and is set well below levels known to have effects. Manufacturers of wireless phones must report the RF exposure level for each model of phone to the FCC. The FCC website (http://www.fcc.gov/oet/rfsafety) gives directions for locating the FCC identification number on your phone so you can find your phone's RF exposure level in the online listing.

8. What has the FDA done to measure the radio frequency energy coming from wireless phones?

The Institute of Electrical and Electronic Engineers (IEEE) is developing a technical standard for measuring the radio frequency energy (RF) exposure from wireless phones and other wireless handsets with the participation and leadership of FDA scientists and engineers. The standard, 'Recommended Practice for Determining the Spatial- Peak Specific Absorption Rate (SAR) in the Human Body Due to Wireless Communications Devices: Experimental Techniques,' sets forth the first consistent test methodology for measuring the rate at which RF is deposited in the heads of wireless phone users. The test method uses a tissuesimulating model of the human head. Standardized SAR test methodology is expected to greatly improve the consistency

of measurements made at different laboratories on the same phone. SAR is the measurement of the amount of energy absorbed in tissue, either by the whole body or a small part of the body. It is measured in watts/kg (or milliwatts/g) of matter. This measurement is used to determine whether a wireless phone complies with safety guidelines.

9. What steps can I take to reduce my exposure to radiofrequency energy from my wireless phone?

If there is a risk from these products - and at this point we do not know that there is - it is probably very small. But if you are concerned about avoiding even potential risks, you can take a few simple steps to minimize your exposure to radiofrequency energy (RF). Since time is a key factor in how much exposure a person receives, reducing the amount of time spent using a wireless phone will reduce RF exposure. If you must conduct extended conversations by wireless phone every day, you could place more distance between your body and the source of the RF, since the exposure level drops off dramatically with distance. For example, you could use a headset and carry the wireless phone away from your body or use a wireless phone connected to a remote antenna. Again, the scientific data do not demonstrate that wireless phones are harmful. But if you are concerned about the RF exposure from these products, you can use measures like those described above to reduce your RF exposure from wireless phone use.

10. What about children using wireless phones?

The scientific evidence does not show a danger to users of wireless phones, including children and teenagers. If you want to take steps to lower exposure to radiofrequency energy (RF), the measures described above would apply to children and teenagers using wireless phones. Reducing the time of wireless phone use and increasing the distance between the user and the RF source will reduce RF exposure. Some groups sponsored by other national governments have advised that children be discouraged from using wireless phones at all. For example, the government in the United Kingdom

distributed leaflets containing such a recommendation in December 2000. They noted that no evidence exists that using a wireless phone causes brain tumors or other ill effects. Their recommendation to limit wireless phone use by children was strictly precautionary; it was not based on scientific evidence that any health hazard exists.

11. What about wireless phone interference with medical equipment?

Radio frequency energy (RF) from wireless phones can interact with some electronic devices. For this reason, the FDA helped develop a detailed test method to measure electromagnetic interference (EMI) of implanted cardiac pacemakers and defibrillators from wireless telephones. This test method is now part of a standard sponsored by the Association for the Advancement of Medical instrumentation (AAMI). The final draft, a joint effort by the FDA, medical device manufacturers, and many other groups, was completed in late 2000. This standard will allow manufacturers to ensure that cardiac pacemakers and defibrillators are safe from wireless phone EMI. The FDA has tested hearing aids for interference from handheld wireless phones and helped develop a voluntary standard sponsored by the Institute of Electrical and Electronic Engineers (IEEE). This standard specifies test methods and performance requirements for hearing aids and wireless phones so that no interference occurs when a person uses a 'compatible' phone and a 'compatible' hearing aid at the same time. This standard was approved by the IEEE in 2000. The FDA continues to monitor the use of wireless phones for possible interactions with other medical devices. Should harmful interference be found to occur, the FDA will conduct testing to assess the interference and work to resolve the problem.

12. Where can I find additional information?

For additional information, please refer to the following resources:

FDA web page on wireless phones (http://www.fda.gov, click on "C" in the index and "Cell Phones")

Federal Communications Commission (FCC)

RF Safety Program
(http://www.fcc.gov/oet/rfsafety)

International Commission on Non-Ionizing Radiation Protection
(http://www.icnirp.de)

World Health Organization (WHO)
International EMF Project
(http://www.who.int/emf)

National Radiological Protection Board (UK)
(http://www.hpa.org.uk/radiation/)

10 Driver Safety Tips

Your wireless phone gives you the powerful ability to communicate by voice almost anywhere, anytime. An important responsibility accompanies the benefits of wireless phones, one that every user must uphold.

When operating a car, driving is your first responsibility.

When using your wireless phone behind the wheel of a car, practice good common sense and remember the following tips:

1. Get to know your wireless phone and its features such as speed dial and redial. Carefully read your instruction manual and learn to take advantage of valuable features most phones offer, including automatic redial and memory. Also, work to memorize the phone keypad so you can use the speed dial function without taking your attention off the road.
2. When available, use a hands-free device. A number of hands-free wireless phone accessories are readily available today. Whether you choose an installed mounted device for your wireless phone or a speaker phone accessory, take advantage of these devices if available to you.
3. Make sure you place your wireless phone within easy reach and where you can reach it without removing your eyes from the road. If you get an incoming call at an inconvenient time, if possible, let your voicemail answer it for you.
4. Suspend conversations during hazardous driving conditions or situations. Let the person you are speaking with know you are driving; if necessary, suspend the call in heavy traffic or hazardous weather conditions. Rain, sleet, snow and ice can be hazardous, but so is heavy traffic. As a driver, your first responsibility is to pay attention to the road.

5. Do not take notes or look up phone numbers while driving. If you are reading an Address Book or business card, or writing a "to-do" list while driving a car, you are not watching where you are going. It is common sense. Don't get caught in a dangerous situation because you are reading or writing and not paying attention to the road or nearby vehicles.

6. Dial sensibly and assess the traffic; if possible, place calls when you are not moving or before pulling into traffic. Try to plan your calls before you begin your trip or attempt to coincide your calls with times you may be stopped at a stop sign, red light or otherwise stationary. But if you need to dial while driving, follow this simple tip— dial only a few numbers, check the road and your mirrors, then continue.

7. Do not engage in stressful or emotional conversations that may be distracting. Stressful or emotional conversations and driving do not mix; they are distracting and even dangerous when you are behind the wheel of a car. Make people you are talking with aware you are driving and if necessary, suspend conversations which have the potential to divert your attention from the road.

8. Use your wireless phone to call for help. Your wireless phone is one of the greatest tools you can own to protect yourself and your family in dangerous situations — with your phone at your side, help is only three numbers away. Dial 911 or other local emergency number in the case of fire, traffic accident, road hazard or medical emergency. Remember, it is a free call on your wireless phone!

9. Use your wireless phone to help others in emergencies. Your wireless phone provides you a perfect opportunity to be a "Good Samaritan" in your community. If you see an auto accident, crime in progress or other serious emergency where lives are in danger, call 911 or other local emergency number, as you would want others to do for you.

10. Call roadside assistance or a special wireless non-emergency assistance number when necessary. Certain situations you encounter while driving may require attention, but are not urgent enough to merit a call for emergency services. But you can still use your wireless phone to lend a hand. If you see a broken-down vehicle posing no serious hazard, a broken traffic signal, a minor traffic accident where no one appears injured or a vehicle. You know to be stolen, call roadside

assistance or other special non-emergency wireless number. The above tips are meant as general guidelines. Before deciding to use your mobile device while operating a vehicle, it is recommended that you consult your applicable jurisdiction's local laws or other regulations regarding such use. Such laws or other regulations may prohibit or otherwise restrict the manner in which a driver may use his or her phone while operating a vehicle.

For more information, please call to 888-901-SAFE, or visit our website http://www.ctia.org.

Consumer Information on SAR (Specific Absorption Rate)

This model phone meets the government's requirements for exposure to radio waves.

Your wireless phone is a radio transmitter and receiver. It is designed and manufactured not to exceed the emission limits for exposure to radio frequency (RF) energy set by the Federal Communications Commission (FCC) of the U.S. Government. These limits are part of comprehensive guidelines and establish permitted levels of RF energy for the general population. The guidelines are based on standards that were developed by independent scientific organizations through periodic and thorough evaluation of scientific studies. The standards include a substantial safety margin designed to assure the safety of all persons, regardless of age and health.

The exposure standard for wireless mobile phones employs a unit of measurement known as the Specific Absorption Rate, or SAR. The SAR limit set by the FCC is 1.6 W/kg.* Tests for SAR are conducted using standard operating positions specified by the FCC with the phone transmitting at its highest certified power level in all tested frequency bands. Although SAR is determined at the highest certified power level, the actual SAR level of the phone while operating can be well below the maximum value. Because the phone is designed to operate at multiple power levels to use only the power required to reach the network, in general, the closer you are to a wireless base station antenna, the lower the power output.

Before a phone model is available for sale to the public, it must be tested and certified to the FCC that it does not exceed the limit established by the government-adopted requirement for safe exposure. The tests are

performed in positions and locations (e.g., at the ear and worn on the body) as required by the FCC for each model. The highest SAR value for this phone when tested for use at the ear is 0.67 W/kg and when worn on the body, as described in this user's manual, is 1.22 W/kg. (Body-worn measurements differ among phones models, depending upon available accessories and FCC requirements.) While there may be differences between SAR levels of various phones and at various positions, they all meet the government requirement for safe exposure.

The FCC has granted an Equipment Authorization for this model phone with all reported SAR levels evaluated as in compliance with the FCC RF emission guidelines. SAR information on this model phone is on file with the FCC and can be found under the Display Grant section of http://www.fcc.gov/oet/fccid after searching on FCC ID ZNFE970.

Additional information on Specific Absorption Rates (SAR) can be found on the Cellular Telecommunications Industry Association (CTIA) website at http://www.ctia.org

* In the United States and Canada, the SAR limit for mobile phones used by the public is 1.6 watts/kg (W/kg) averaged over one gram of tissue. The standard incorporates a substantial margin of safety to give additional protection for the public and to account for any variations in measurements.

FCC Hearing-Aid Compatibility (HAC) Regulations for Wireless Devices

On July 10, 2003, the U.S. Federal Communications Commission (FCC) Report and Order in WT Docket 01-309 modified the exception of wireless phones under the Hearing Aid Compatibility Act of 1988 (HAC Act) to require digital wireless phones be compatible with hearing-aids. The intent of the HAC Act is to ensure reasonable access to telecommunications services for persons with hearing disabilities.

While some wireless phones are used near some hearing devices (hearing aids and cochlear implants), users may detect a buzzing, humming, or whining noise. Some hearing devices are more immune than others to this interference noise, and phones also vary in the amount of interference they generate.

The wireless telephone industry has developed

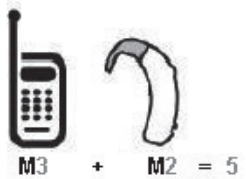
a rating system for wireless phones, to assist hearing device users to find phones that may be compatible with their hearing devices. Not all phones have been rated. Phones that are rated have the rating on their box or a label located on the box.

The ratings are not guarantees. Results will vary depending on the user's hearing device and hearing loss. If your hearing device happens to be vulnerable to interference, you may not be able to use a rated phone successfully. Trying out the phone with your hearing device is the best way to evaluate it for your personal needs.

M-Ratings: Phones rated M3 or M4 meet FCC requirements and are likely to generate less interference to hearing devices than phones that are not labeled. M4 is the better/higher of the two ratings.

T-Ratings: Phones rated T3 or T4 meet FCC requirements and are likely to generate less interference to hearing devices than phones that are not labeled. T4 is the better/ higher of the two ratings.

Hearing devices may also be rated. Your hearing device manufacturer or hearing health professional may help you find this rating. Higher ratings mean that the hearing device is relatively immune to interference noise. The hearing aid and wireless phone rating values are then added together. A sum of 5 is considered acceptable for normal use. A sum of 6 is considered for best use.



In the above example, if a hearing aid meets the M2 level rating and the wireless phone meets the M3 level rating, the sum of the two values equal M5. This should provide the hearing aid user with "normal usage" while using their hearing aid with the particular wireless phone. "Normal usage" in this context is defined as a signal quality that's acceptable for normal operation.

The M mark is intended to be synonymous with the U mark. The T mark is intended to be synonymous with the UT mark. The M and T marks are recommended by the Alliance for Telecommunications Industries Solutions (ATIS). The U and UT marks are referenced in Section 20.19 of the FCC Rules. The HAC rating and measurement procedure are described in the American National Standards Institute (ANSI) C63.19 standard.

When you're talking on a cell phone, it's recommended that you turn the BT (Bluetooth)

mode off for HAC.

For information about hearing aids and digital wireless phones

Wireless Phones and Hearing Aid Accessibility

http://www.accesswireless.org/Home.aspx

FCC Hearing Aid Compatibility and Volume Control

http://www.fcc.gov/cgb/consumerfacts/hac_wireless.html